

The Rise of Computing Technology and Working at Home: Data from the Current Population Survey Supplements

Introduction

The ability for people to work from their home has been facilitated in large part during the last two decades by an enormous rise in the amount and kind of computing technology available to people and businesses. The transformation of the computer from a large, industrial object to a small, relatively inexpensive appliance, has allowed a variety of transformations in social life. Included among these is the capability to use computers in the home as an extension of the workplace. Nevertheless, despite the rapid and widespread growth of home computing technology, sizable differentials still exist in home computing, and, therefore, the ability to utilize this tool for home-based work.

This paper discusses data collected in a variety of Current Population Survey supplements that has allowed the Census Bureau to track home computer diffusion as well as the uses for which computers are employed. These data show that the use of home computers for accomplishing work-related tasks have risen about as quickly as has the general diffusion of the tools in the population itself. However, as with the basic distribution of home computing technology, there do exist differentials in who uses computers to work at home.

Data

The Current Population Survey (CPS) is a large, monthly nationally-representative household-based survey of the noninstitutional population of the United States. Conducted monthly since the early 1940s, the CPS is best known as the official source of the national monthly unemployment rate for the United States and individual states. The design uses a multistage stratified cluster design, to both minimize data collection costs and maximize efficiency in variance. Interviews are conducted with all members of the household, or a designated proxy. The collected sample data is then weighted using independent estimates of the population, disaggregated along some of the same general aspects of stratification (e.g., race, age and geography) used in the sampling design. In this way, the CPS is able to provide weighted population estimates of a wide variety of social, demographic and economic phenomena for the nation and some subnational geography, as well as for some selected demographic subpopulations.

Over the years, the CPS has come to be known as much for the supplemental data collections that it conducts, as for the monthly labor force data collection. Each March, for example, sees the fielding of the Annual Demographic Supplement, which focuses on the earnings, income, assets and selected income transfer program activities of individuals in the sampled households. It is from these data that the yearly national estimates on the poverty population are prepared.

Other months are used to sponsor different supplemental data collections. Since the late 1940s the month of October has routinely been used by the Department of Education and, in recent times, the National Center for Education Statistics (NCES), to field a supplement on the school enrollment of the population. This supplement, jointly sponsored with the Census Bureau, collects a series of data items that allow us to identify all persons enrolled in school, their level of enrollment, and a variety of other school-related questions. Some of these latter items change from year to year, depending on the specific data needs of the education community.

In the early 1980s, NCES approached the Census Bureau about the feasibility of collecting information on computers and especially, home computers, as a way of measuring one of the skill capacities of the population. At that time, home — or personal — computers were just beginning to emerge as a viable product. The Apple computer had first appeared in the late 1970s, and by the early 1980s a variety of companies had started producing small computers designed for home use. We designed a CPS supplement that was focused on the concepts of access and use of computers in general, in three venues — work, home and school. This initial supplement was fielded as part of the October 1984 CPS. Subsequently, we have fielded additional supplements with the same fundamental focus, as parts of the October CPS in 1989, 1993 and 1997.

It should be noted here that the focus of these supplements has been on the general levels of computer access and use in the three venues, with limited attention paid to the kinds and levels of use. The surveys have not been designed to answer questions specific to the issue of telecommuting and home-based work, but are useful in illuminating some of the general trends and underlying patterns in the growth and spread of home computing infrastructure and the ways it is being put to use.

An important strength of the CPS is that it relies on a sample design of all household addresses in the United States. In the context of studying home computers this is not a trivial consideration. While the vast majority of United States households do have telephones, a small but important proportion — about 6% — do not. Households such as these are seldom accounted for in conventional telephone-based surveys conducted by marketing organizations, and overlook a segment of the population that is highly likely not to be a part of the home computing population.

Using Computers at Work

One might reasonably argue that the growth in the use of computers at home has been facilitated, at least in part, by the clear fact that computers have in general become a part of everyday life, especially in

the workplace. Certainly, in the era prior to the introduction of the personal computer, many workers were employed in positions that required them to use a large (in physical terms) computer, often referred to as a “mainframe.” These computers originally used a system of “batch processing,” whereby user requests were processed, one at a time. Entry of information or task requests was often accomplished by use of punched cards or instructions coded onto magnetic tape. Later versions of these machines began to focus on multi-user processing, whereby users at different computer “terminals” could simultaneously use the central processing power of the central computer, directly typing in instructions, using a keyboard with visual echoing on a computer screen. While today we take much of the ease of use of our interface with computers for granted, the reality is that until about 1980, most computer interactions were accomplished in fairly tedious and involved ways with machines requiring large amounts of physical space and special heating and cooling needs. The move, first to multiprocessing computers, and then to physically small-scale computers, allowed the workplace to extend computing capacity to many workers.

Data from the four CPS supplements demonstrate that by the time of even our earliest survey, many people reported that they did, in some way, use a computer at work. Table 1, which provides a variety of summary measures for the child and adult population, shows that even as early as the first supplement in 1984, a quarter of the employed population was using a computer at work. By 1997 this had risen to one-half of all employed persons. Disaggregating these users by a variety of social and demographic factors, as in Table 2, shows that variation has existed at all points in time. Some of these, such as the racial and ethnic differences, are most likely accounted for by the differential distribution of persons with these characteristics across occupation and educational categories, which are themselves, highly correlated.

Examination of Table 2 shows that the highest levels of computer use in the workplace are by persons who have the highest reported educational attainment as well as those working in managerial and professional occupations. Not coincidentally, the highest level of use across family income categories is also demonstrated in the highest income category. Figure I arrays the levels of use at work for a variety of categories in the various socio-demographic variables examined in detail in Table 2.

Obviously, computer use at work is most prevalent among persons in occupations that we routinely associate with computers — managers and high-skilled technical and professional jobs, generally requiring high levels of education and, on average, paying higher wages. But by 1997 there were also relatively high levels of computer use at work for other groups as well. Over a third of persons with just a high school degree used a computer at work, as did about 70% of those employed in technical and sales jobs. Low levels of computer use at work are in fact reported by only small segments of the population — those working in farming, forestry and fishing occupations, or those who have less than a high school degree. Clearly, by 1997, the computer became a fundamental tool for many workers.

The Growth in Home Computers and the Differentials

Throughout the 1980s and 1990s, the personal computer took up residence in a large number of homes across the United States. As Table I shows, the proportion of households with a computer rose from just 8%

in 1984, to 37% by 1997. In population terms, 40% of adults, and 50% of children, had access to a home computer by 1997. A number of factors fueled this growth — dramatic reductions in costs and dramatic increases in usability and applications being two of the primary forces.

Table 3 shows that the distribution of home computers, as with those in the workplace, was not even across all segments of the population. The single strongest dimension of distribution, even in 1997, is the family income or economic resources of the household. While the dollar cost of computers, relative to their capability, has declined massively during the period of study here, the fact remains that the actual dollar cost of a “basic” home computing ensemble is still in the range of \$1,000-\$2,000. For many households a \$ 1,000 investment is not a trivial cost. Even in 1997, only about 1-in-10 households with family income of \$15,000 or less a year, had a home computer. This compares to households with family income of \$75,000 or more a year, three-quarters of which had a home computer.

Figure 2 focuses on extreme variations in home ownership across the categories of a number of socio-demographic factors. Computers were more likely to be found in homes where the householder had higher levels of education, and where the householder was employed. Married-family household with school-age children were also more likely than average have a home computer — an encouraging sign that the presence of a computer is mediated to some extent by the desire of parents to expose their children to this important tool.

Lower levels of home computer ownership are seen in Black and Hispanic households, among householders with low educational attainment levels, the unemployed, and as noted before, households with low family income. Some geographic variation is also evident. While 43% of the households in the West had a home computer, just 33% of those in the South did.

Thus, while home computers have become a part of many households in the United States, there are still a sizable proportion which do not have a computer. (An updated estimate produced from the December 1998 CPS showed a prevalence level of 42.8% based on this trend it is not unreasonable to expect that about half of all U.S. households now have a home computer of some type.) More importantly, it is clear that there are serious socio-demographic differentials in the distribution of home computers that are likely to continue for at least the near future.

Using Computers at Home

Just because a computer is present in the home does not automatically mean that every household member will use it, use it in the same way, or use it at the same level. As we have seen, home computers have a particularly high prevalence in homes with school-age children and where there is disposable income. In the early years of CPS data collection on this topic, we were also able to show that home usage rates were much higher for children in these homes than for adults (75% compared to 53%). By our most recent collection in 1997, the difference in usage rates had considerably decreased. Among children 3-17 who had a computer at home, 82% were reported to use it in some way. For adult with a computer at home,

71% were using it. The overall gap between children and adults is clearly diminishing, even with usage rates for children in schools also on the increase.

Tables 4(A) through 4(D) show the levels of home computer use, given that one is available, for the collection of socio-demographic subgroups we have discussed up to this point, tabulated across the four data collection points. These tables help detail some of the changes in the use of home computers of adults over time, as well as demonstrate some of the patterns that have remained relatively constant. As in the earlier figures, Figure 3 draws attention to categories of widest variation in levels of use of home computers.

While there are a number of factors considered in these tables, only several which are of most significant interest to the broader topic of home work are discussed here. The first pattern of interest is the sizable increase in the proportion of older persons who report they use a home computer. In 1984, about 36% of persons ages 55 or above who had a computer at home reported that they used the computer. By 1997, this level had risen to 57%. In numeric terms we went from about 500,000 older adults using home computers in 1984, to 7.5 million in 1997, a fifteen-fold increase.

The next dimension of interest is gender. In 1984 for both adults and children alike, there was a sizable gender difference in the use of computers, especially in the home. In 1984, 63% of adult males reported using their home computer, but just 43% of women did the same. By 1997, this difference had nearly disappeared — 72% of men and 70% of women reported that they used their home computer. In fact, reported computer usage at work by employed persons has always been higher for women since these data were first collected in 1984 (29% of women and 21% of men in 1984; 57% of women and 44% of men in 1997). Clearly, as the home computer has evolved to a more multipurpose tool, the variety of applications has made it a more *useful* tool for everyone.

The final dimension of interest in home usage levels concerns the patterns with regard to family income. As we have seen, family income is a strong correlation of the ability to own a home computer. Since income is strongly associated with other factors such as education and occupation, there is reinforced selectivity in who uses a home computer. However, as the data in Table 4 show, once a computer is in the home, there is very little effect of income level on whether or not the computer is used. Usage levels at each point in time are highly similar, although the overall level of use among all groups has been rising over time. In short, once the barrier of the ownership cost is passed, factors such as income have little effect on actual use of the tool.

In summary, the CPS data show what is now commonly accepted knowledge — that the use of home computers is on the upswing for virtually all sectors of the population. As computing machines become more commonplace in the home, people of all ages and groups are likely to find ways to put them to use. Of course, there are many different things that computers can be used for.

Using Home Computers for Work

One of the strong values of the CPS data on computer ownership and use is high level of consistency maintained in the questions asked in each survey administration. By doing this, we hope to get answers and data which will behave in a consistent fashion. The goal is to avoid changes over time that are simply an artifact of the survey administration procedure, or in this case specifically, the questions asked of respondents. In this regard, the baseline measures provided by the CPS supplements are quite strong. The fundamental questions asked in the supplement access to and use of computers in the domains of home, work and school — were posed to respondents in virtually the same way in each of the four administrations.

It is in the finer detail of the questions that variation starts to arise across the supplements. Part of the reason for this is that these more detailed issues have changed over time as computing technology and its uses have evolved. What was an “appropriate” response in 1989 (“bulletin boards”) is replaced by something in 1997 that didn’t even exist for most people a decade earlier (“Internet”).

The CPS data available to measure computers used for “working at home” shows just this sort of variation. In 1984, respondents were offered seven choices of activities for which they used their home computer. One of these was the choice, “job or business related activities.” In 1989, the question on home uses had been expanded to seventeen choices, among them of which were the choices, “connect to computer at work/work at home” and “home-based business.” By 1993, 24 choices for home use were offered, including, “connect to computer at work”; “home-based business”; and “work at home.” By 1997, enough self-control was regained to pare down the list to just 14 responses, including, “connect to computer at work or school” and “work at home.” Obviously, the changes over time reflect both the growth in the number of uses, but also the importance of kinds of uses as well.

While the inconsistency in the kinds of response categories do not allow clean indications of the growth of home computers for work uses, the data do show marked increases in the number and percentage of people who are using computers in the home to do their work. The various panels of Tables 5(A) – 5(D) show that in 1984 about 2.9 million people said they used their home computer for job-related work. By 1989, just over 2 million people said they used their home computer to connect to or work at home, while 2 million people also said they used their computer for a home-based business. It is important to note that since respondents could choose as many reasons as they liked, there is undoubtedly some, but not complete, overlap in the 2 million people that chose these two answers.

In 1993, with three possible choices concerning work, the numbers increase dramatically. About 2.6 million people said they used the home computer to connect to work; 1.7 million said they used it for a home-based business; and 8.6 million said they used it to “work at home”. Again, the likelihood is that some overlap exists among the people who made these choices. Nevertheless, the largest single number — 8.6 million — defines the SMALLEST possible overall number of “homeworkers” (that is, if all persons who chose either of the other two responses also all chose the response, “work at home.”) Thus, by 1993 it is not unlikely that over 10 million persons were using a computer at home to do their job at least part of the time.

Finally in 1997, with only two relevant categories, 8.2 million people reported that they used a home computer to log in to school or work, and 19.4 million people said they used a computer to work at home. Again, using the logic of unduplicating these counts, it is not unreasonable that certainly over 20 million, and perhaps something as high as 25 million persons, were using a home computer for work purposes.

The subtables depicted here as Tables 5(A) through 5(D) show the percentage of all adult home computer users — not the total adult population — who said they used the computer at home for the category of examination. So, for example, in Table 5(A) for 1984, about 37% of all adults who used a computer at home said they used it for a job-related purpose. Similarly, in Table 5(D), 34% of all persons who said they used a computer at home, said they used it to “work at home.” As noted, these percentages are heavily mediated both by the overall numbers of users (which have risen considerably over the period) as well as the number and kinds of uses afforded to them to choose from.

Focusing only on the data of the most recent collection, it is clear that using a computer to work at home is a routine part of many persons’ lives. Figure 4 helps to illustrate some of the strong levels of variation among different socio-demographic factors. Race differences, while present, are not overwhelmingly large; the gender difference still favors males slightly. The largest levels of variation in the level of home use for work appear across educational levels and occupational categories. Related factors, such as family income, reflect this variation as well.

What Do the Data Mean?

Much of the CPS data and discussion provided here focuses on a relatively small set of socio-demographic dimensions that help to identify users of computers in the general population, then in the home context, and lastly, in the home context specifically with regard to work. As noted at the beginning of the paper, the CPS computer supplements are not ideally designed to measure the level or complexity of homeworking or telecommuting in the United States. The data they do provide allow us to gauge some of the areas of inequality, and therefore, concern, to which focus might be brought. Other areas, however, are completely out of the scope of the CPS supplements, and as such, will require other data to be appropriately addressed.

The CPS data do show us that over time, increasingly larger numbers of people are using home computers to do some of their work. While there is not an absence of inequality in this behavior across race and gender groups, the levels are small compared to other dimensions. The factors where the larger variations in levels of home use occur are educational attainment and occupation type. Among persons with a bachelor’s degree or more who had a home computer in 1997, 47% reported that they used the computer to work at home. By contrast, less than 15% of persons who had less than a high school degree, and who had a computer at home, reported that they used the computer to work at home. Moreover, because we know that ownership of a home computer is itself related to educational attainment, these differences are even more disparate if calculated on the total adult population, as opposed to the computer-owning population, as has been shown here.

Across occupation categories, half of managers and professional workers who had a computer at home reported they used it to work at home. But far smaller proportions of persons in service and laborer occupations are able to report the use of a computer at home to do their job. To some extent this is understandable. Many managers and technical professionals are doing work which requires perhaps nothing more than a computer, while obviously, persons working in an industrial production setting are probably going to have a difficult time running the factory machinery from their home — *at least for the time being*.

Since the CPS supplements are focused so broadly, they cannot really begin to get at some of the finer social and cultural details that emerge once people are enabled to work in the home. There are numerous issues that quickly come into play:

- the use of (and boundaries between) work and non-work time;
- the ability to accommodate family and other activities;
- economic considerations;
- social relationships among workers; and
- management control.

Each of these, and probably many others, are topics worthy of study and investigation, and in order to do so, will require dedicated, focused data to inform the analyses. In some cases it may well be that small-scale studies will be able to provide useful data, but for some topics large-scale data will be necessary. A thoughtful research agenda can help to determine where resources need to be spent, and where the best return for the investment can occur.

CPS Resources and Future Plans

The discussion in this paper relies on a series of analyses of the CPS Computer Use Supplements conducted in October 1984, 1989, 1993 and 1997. Other supplements, with some related data, were conducted in November 1994 and December 1998, for the National Telecommunications and Information Administration (NTIA). All of the associated reports and analyses prepared from these data sources are accessible via the Census Bureau's internet site (www.census.gov). Upon accessing the site, one should use the alphabetic locator to identify the "Computer Use" topic area, then click on this item for full access to the reports and associated tabulations of these data by both Census and the NTIA. Public-use microdata samples for further analyses are available for all of these data sets.

The Census Bureau currently is undertaking the development of a continuing yearly CPS supplement on computer and Internet use. This activity involves multiple federal agencies including Census, the National Center for Education Statistics (NCES), the Bureau of Labor Statistics (BLS) and the NTIA. The proposed questionnaire is currently in cognitive testing. The tentative goal is to field the first new yearly supplement in 2001.

Figure 1: Use of computers at work: 1997

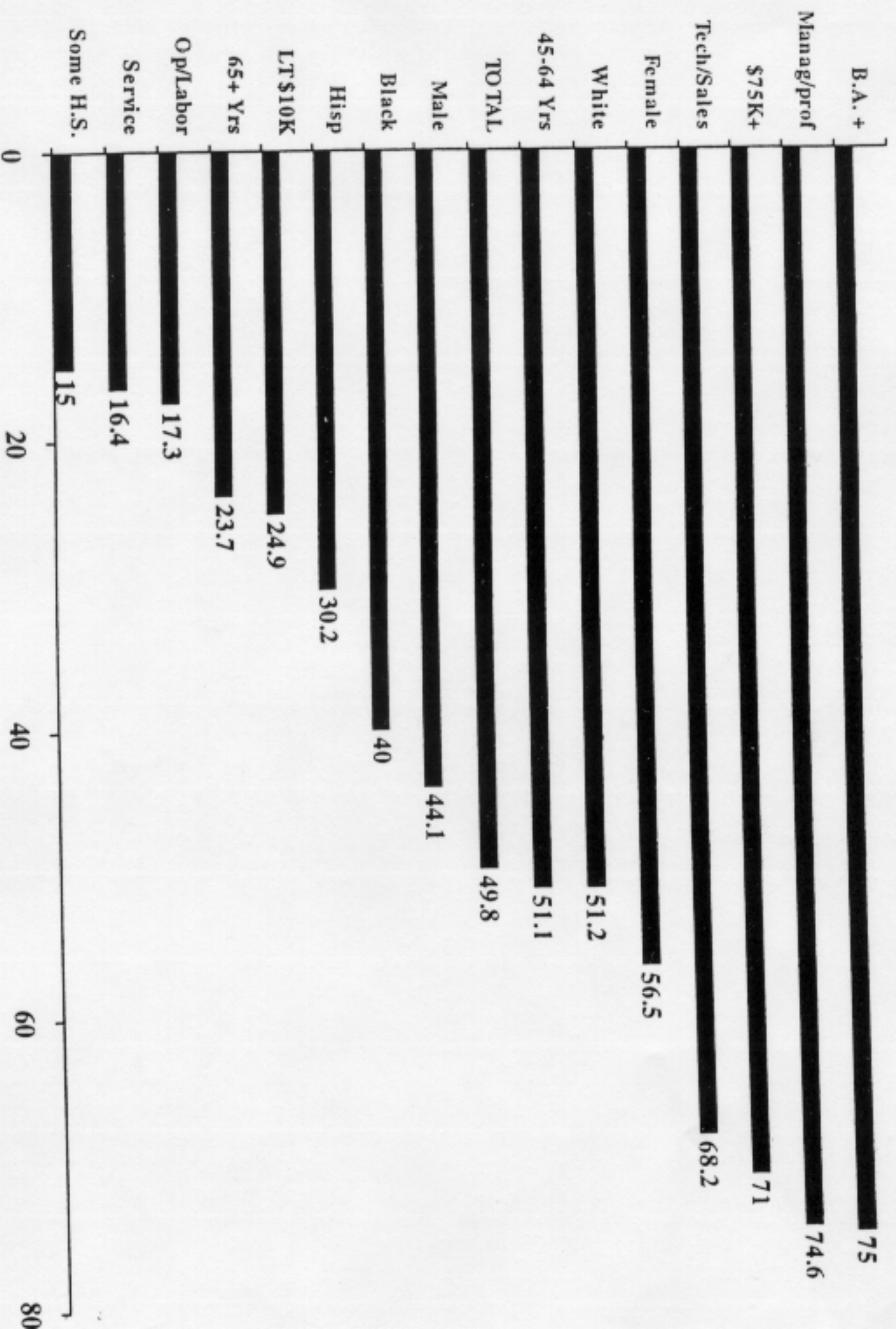


Figure 2: Ownership of home computers: 1997

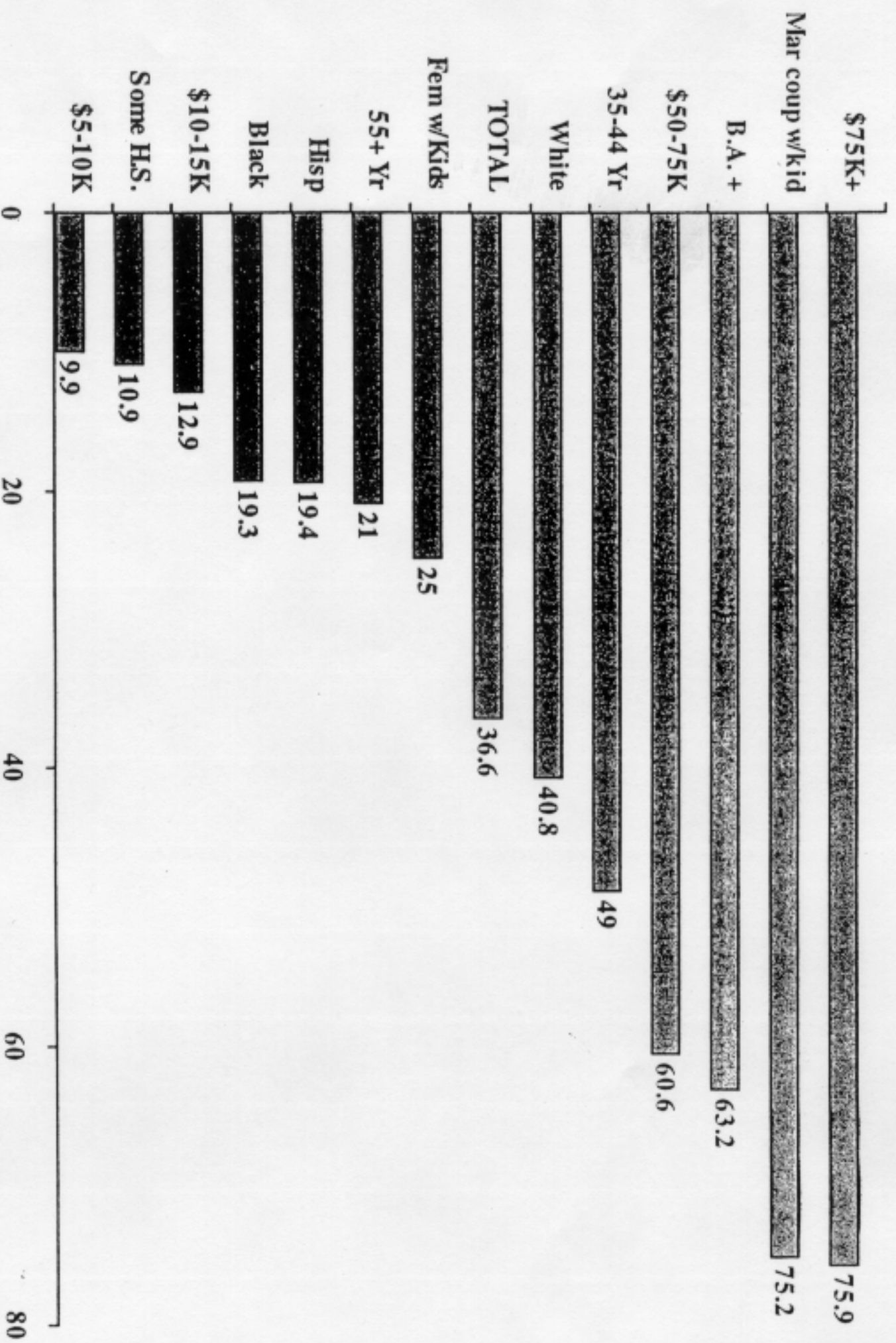


Figure 3: Use of home computers: 1997

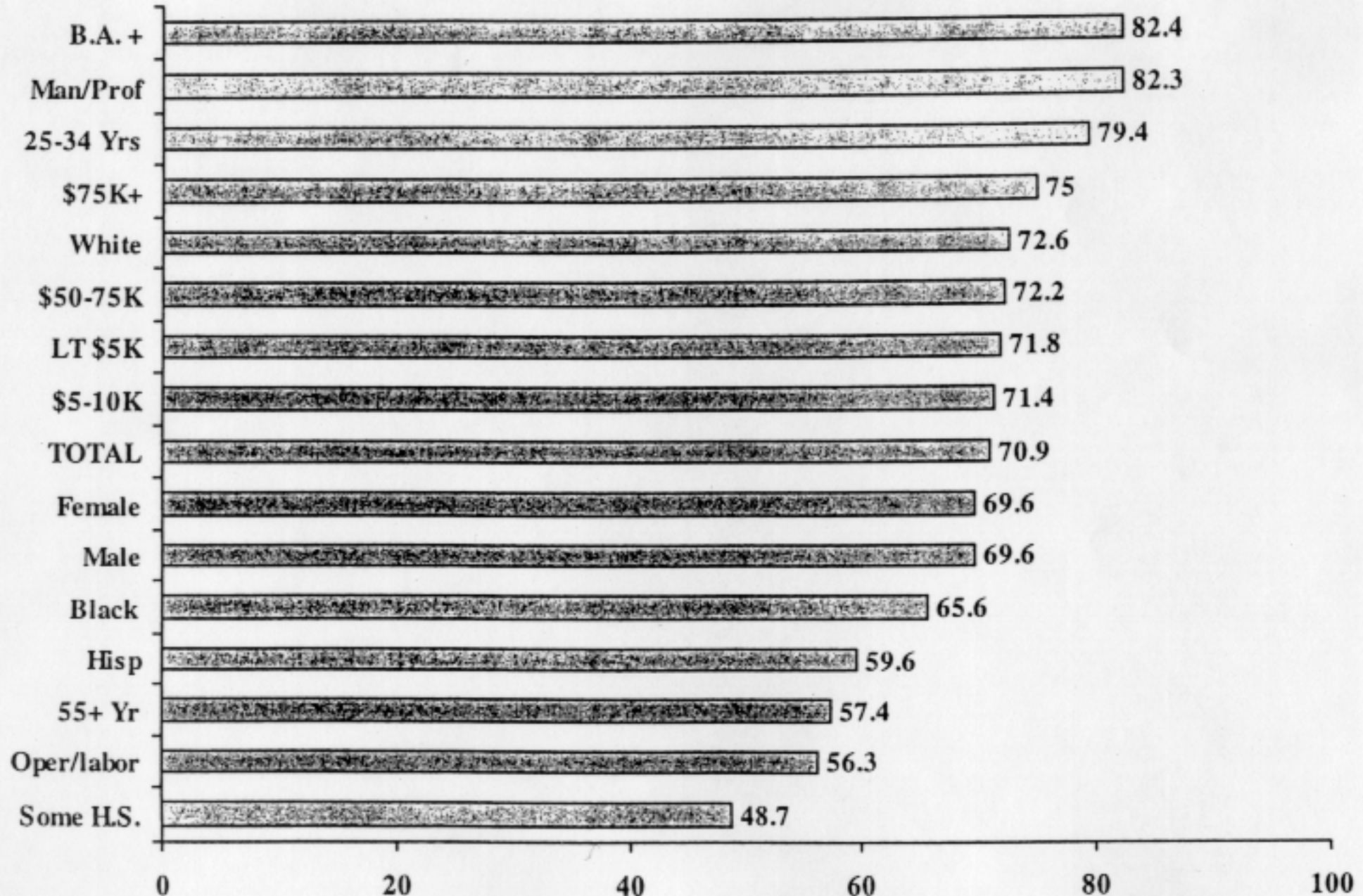


Figure 4: Using home computers for work: 1997

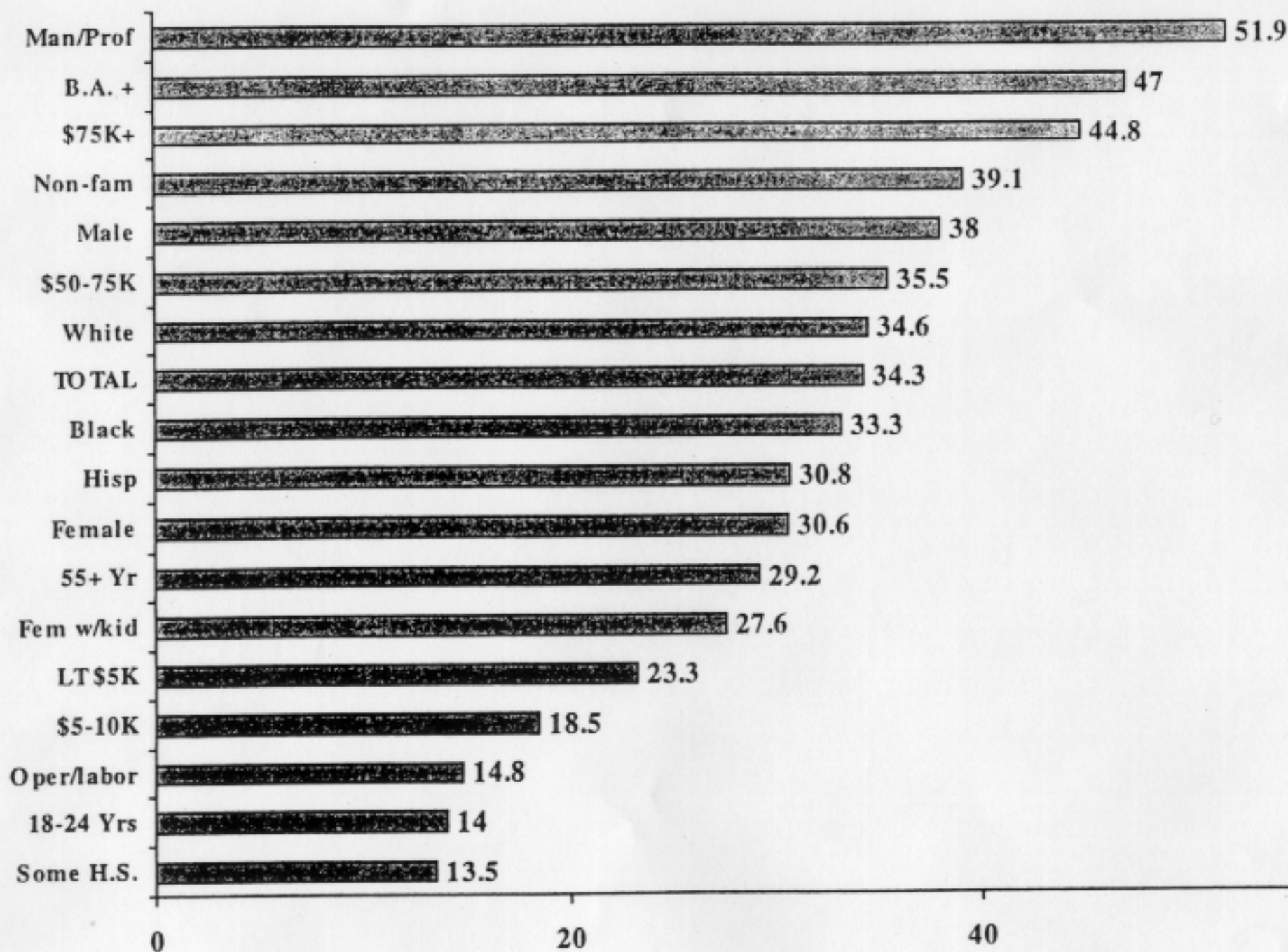


Table 1. Levels of Access and Use of Computers: 1984, 1989, 1993, 1997.

(In percent)

Access, use, and Age	1984	1989	1993	1997
Households with computers.....	7.9	14.4	22.8	36.6
3 to 17 years:				
Access to a home computer.....	15.3	24.2	31.9	49.7
Use home computer/1.....	74.2	71.1	74.7	82.4
Use computer at school/2.....	28.0	46.0	60.6	70.8
Use computer at home or school.....	30.2	46.0	58.5	74.4/4
18 years and over:				
Access to a home computer.....	9.1	17.3	25.6	40.7
Use home computer/1.....	53.3	58.4	65.6	70.9
Use computer at school/2.....	30.8	43.6	53.8	62.3
Use computer at work/3.....	24.6	36.8	45.8	49.8
Use computer at home, school, or work	18.3	28.1	36.0	47.1

1/Among people with a computer at home.

2/Among those enrolled in school.

3/Among employed individuals.

4/1997 figure includes 62,000 at work users.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 2. Use of Computers at Work by People 18 Years and Older: October 1984, 1989, 1993, 1997
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	1997			1993			1989			1984		
	With a job	Use computer at work		With a job	Use computer at work		With a job	Use computer at work		With a job	Use computer at work	
	N	N	%	N	N	%	N	N	%	N	N	%
TOTAL	128,198	63,876	49.8	118,400	51,106	45.8	115,669	40,245	36.8	103,980	24,172	24.6
GENDER												
Male	68,801	30,332	44.1	64,279	24,414	40.3	63,416	18,960	31.6	58,563	11,715	21.2
Female	59,397	33,544	56.5	54,121	26,692	52.4	52,253	21,285	43.0	45,417	12,457	29.0
AGE												
Under 25 years	16,178	6,007	37.1	15,366	4,965	32.3	16,699	4,720	28.3	18,091	3,521	19.5
25-44 years	68,438	36,649	53.6	65,101	30,768	47.3	64,421	25,476	39.6	55,257	15,248	27.6
45-64 years	39,751	20,313	51.1	34,357	14,707	42.8	31,171	9,626	30.4	27,656	5,245	19.0
65+ years	3,832	908	23.7	3,576	667	20.3	3,378	421	13.6	2,976	159	5.9
RACE												
White	108,463	55,508	51.2	101,767	45,326	47.1	100,074	35,977	37.8	90,826	21,795	25.3
Black	14,011	5,599	40.0	12,258	4,072	36.1	11,767	2,990	27.6	10,212	1,724	18.3
Other	5,724	2,769	48.4	4,375	1,708	42.3	3,828	1,278	36.4	2,942	653	23.9
HISPANIC ORIGIN												
Hispanic	12,733	3,843	30.2	9,208	2,492	29.3	8,449	1,779	22.5	5,643	863	16.4
Non-hispanic	115,465	60,033	52.0	109,192	48,614	47.2	107,219	38,466	37.9	98,337	23,310	25.0
EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	4,430	236	5.3	4,309	158	4.0	5,829	165	3.1	6,211	148	2.6
Some H.S.: no diploma	9,391	1,409	15.0	8,627	1,031	13.0	10,112	929	9.8	10,239	599	6.3
H.S. Diploma/GED	42,324	15,395	36.4	41,538	13,307	34.2	46,243	12,665	29.0	43,331	8,002	19.6
Some College	37,291	20,749	55.6	33,646	16,821	52.6	25,539	11,048	45.5	21,452	6,356	31.1
Bachelors degree or more	34,762	26,088	75.0	30,280	19,789	69.1	27,947	15,438	57.8	22,746	9,068	41.7
HOUSEHOLD SIZE												
1-3 people	79,937	41,253	51.6	74,279	33,234	47.5	72,083	26,337	38.7	62,757	15,581	26.3
4-5 people	41,292	20,343	49.3	37,723	16,018	45.0	37,033	12,434	35.2	34,054	7,524	23.3
6-7 people	5,650	1,975	35.0	5,306	1,659	33.7	5,548	1,321	25.2	5,800	924	16.9
8 or more people	1,318	304	23.1	1,092	195	19.5	1,005	152	15.7	1,368	143	11.5
REGION												
Northeast	24,337	12,097	49.7	23,422	9,922	46.0	23,845	8,138	36.9	22,187	5,168	24.9
Midwest	31,063	15,472	49.8	29,247	12,757	45.8	28,578	9,746	35.8	25,638	5,776	23.7
South	44,480	21,622	48.6	40,604	16,990	44.3	39,180	13,446	36.0	35,134	7,626	22.7
West	28,318	14,686	51.9	25,126	11,438	48.2	24,066	8,916	39.1	21,021	5,603	28.4
FAMILY INCOME												
Under \$10,000	7,186	1,789	24.9	8,139	1,393	18.3	10,498	1,765	18.0	12,714	1,144	9.7
10,000-14,999	6,638	1,646	24.8	8,548	1,917	23.7	9,816	1,865	20.2	12,592	1,771	14.9
15,000-19,999	6,109	1,821	29.8	7,994	2,396	31.7	18,607	5,029	28.3	12,177	2,331	20.3
20,000-24,999	8,524	2,983	35.0	9,796	3,325	36.0	10,640	3,534	34.7	12,050	2,550	22.2
25,000-34,999	17,220	7,484	43.5	19,241	7,865	42.8	19,733	7,367	38.8	20,499	5,544	28.1
35,000-49,999	21,863	11,116	50.8	22,642	10,909	50.6	21,710	10,050	48.1	16,566	5,352	33.5
50,000-74,999	25,501	15,622	61.3	20,472	12,093	61.5	7,260	3,673	52.1	11,985	4,494	39.0
75,000+	22,335	15,850	71.0	13,677	8,647	67.0	8,989	4,503	52.5	NA	NA	NA
Not reported	12,821	5,565	43.4	7,891	2,563	39.5	8,416	2,459	34.8	5,396	987	21.9
OCCUPATION												
Manag. and Proff	38,111	28,422	74.6	32,860	21,044	67.7	31,230	16,696	56.2	25,236	9,413	39.0
Tech., Sales, Admin.	37,722	25,735	68.2	36,011	22,317	65.5	35,183	18,461	55.1	31,815	11,729	38.7
Service	16,758	2,752	16.4	15,593	2,126	14.7	14,356	1,368	10.2	13,429	774	6.2
Prod., Craft, Repair	14,015	3,501	25.0	13,663	2,976	23.2	13,895	2,016	15.3	13,170	1,289	10.3
Oper., Labor., Fab.	18,252	3,154	17.3	17,010	2,382	14.9	17,654	1,563	9.5	16,920	877	5.5
Farm, Forest, Fish.,	3,340	311	9.3	3,264	262	8.5	3,350	140	4.4	3,490	87	2.7

'NA'=Not applicable. 1984 income figures have a maximum category of \$50,000+.

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 3.

Households With Computers by Selected Characteristics of the Reference Person: October 1984, 1989, 1993, 1997
(Numbers in thousands)

Characteristic	1997			1993			1989			1984		
	Total Households	Computer in Household		Total Households	Computer in Household		Total Households	Computer in Household		Total Households	Computer in Household	
	N	N	%	N	N	%	N	N	%	N	N	%
All Households	102,158	37,410	36.6	97,764	22,273	22.8	92,960	13,406	14.4	86,311	6,829	7.9
FAMILY INCOME												
Under \$5 000	4,417	729	16.5	5,337	364	6.8	7,509	438	5.8	9,512	154	1.6
5 000-9 999	8,369	830	9.9	10,833	549	5.1	10,704	396	3.7	12,709	218	1.7
10 000-14 999	8,921	1,149	12.9	10,777	864	8.0	10,973	496	4.5	12,429	415	3.3
15 000-19 999	6,414	1,113	17.4	7,738	909	11.7	7,484	598	8.0	9,774	519	5.3
20 000-24 999	7,658	1,760	23.0	8,384	1,255	15.0	8,099	782	9.7	8,541	692	8.1
25 000-34 999	13,537	4,295	31.7	14,076	2,930	20.8	14,206	2,070	14.6	12,932	1,518	11.7
35 000-49 999	14,305	6,527	45.6	14,220	4,381	30.8	12,899	2,899	22.5	9,221	1,570	17.0
50 000-74 999	14,375	8,714	60.6	11,342	5,131	45.2	8,772	2,770	31.6	4,484	1,006	22.4
75 000-	11,959	9,072	75.9	7,544	4,543	60.2	4,821	2,114	43.8	1,919	424	22.1
Not reported	12,184	3,221	26.4	7,512	1,348	17.9	7,493	844	11.3	4,790	314	6.6
AGE												
Under 25 years	5,599	1,565	28.0	4,976	907	18.2	5,165	439	8.5	5,723	291	5.1
25-34 years	19,178	7,577	40.0	19,629	4,598	23.4	20,864	3,019	14.5	19,630	1,852	9.4
35-44 years	23,855	11,700	49.0	22,432	7,164	31.9	20,049	4,714	23.5	16,951	2,620	15.5
45-54 years	19,391	9,313	48.0	16,988	5,693	33.5	14,394	3,164	22.0	12,589	1,279	10.2
55+ years	34,136	7,155	21.0	33,739	3,911	11.6	32,487	2,071	6.4	31,413	788	2.5
RACE												
White Not Hispanic	77,455	31,614	40.8	76,717	19,284	25.1	74,051	11,853	16.0	69,029	6,055	8.8
Black Not Hispanic	12,240	2,367	19.3	11,313	1,284	11.3	10,330	679	6.6	9,353	353	3.8
Other Not Hispanic	3,658	1,719	47.0	2,880	874	30.3	2,535	447	17.6	2,003	163	8.1
Hispanic	8,804	1,710	19.4	6,854	811	12.1	6,044	427	7.1	5,925	253	4.3
EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	7,740	525	6.8	8,712	265	3.0	10,008	189	1.9	11,687	108	0.9
Some H.S.: no diploma	10,251	1,113	10.9	10,499	567	5.4	12,092	548	4.5	12,056	282	2.3
H.S. Diploma/GED	32,488	8,360	25.7	32,737	4,415	13.5	30,613	2,783	9.1	27,800	1,643	5.9
Some College	26,461	11,482	43.4	23,253	6,438	27.7	19,462	3,516	18.1	16,851	1,908	11.3
Bachelors degree or more	25,217	15,928	63.2	22,557	10,588	46.9	20,785	6,370	30.6	17,543	2,820	16.1
Not Reported	0	0		0	0		0	0		375	8	2.1
HOUSEHOLDS:												
Married Couple with Children <18	26,250	15,018	57.2	22,325	7,945	35.6	22,325	5,295	23.7	25,270	3,904	15.4
Male Hhlder with Children <18	2,005	612	30.5	1,608	290	18.0	1,165	188	16.1	975	67	6.9
Female Hhlder with Children <18	8,819	2,208	25.0	7,193	870	12.1	6,595	600	9.1	6,419	432	6.7
Family Hhld without Children <18	32,970	12,210	36.4	36,650	8,874	24.2	35,374	5,223	14.8	29,800	1,534	5.1
Non-family Households	32,114	7,562	23.5	29,983	4,294	14.3	27,499	2,100	7.6	23,847	891	3.7
EMPLOYMENT												
Employed	68,278	31,068	45.5	64,885	18,919	29.2	63,127	11,856	18.8	58,334	6,197	10.6
Unemployed	2,489	532	21.4	3,252	644	19.8	2,251	209	9.3	3,035	132	4.3
Not in Labor force	31,392	5,709	18.2	29,627	2,710	9.1	27,582	1,341	4.9	24,941	480	1.9
REGION												
Northeast	19,887	6,999	35.2	19,892	4,474	22.5	19,353	2,993	15.5	13,455	1,571	11.7
Midwest	24,075	8,796	36.5	23,607	5,175	21.9	22,755	3,073	13.5	21,619	1,675	7.7
South	36,319	12,115	33.4	33,821	6,683	19.8	32,022	4,119	12.9	29,153	2,016	6.9
West	21,878	9,498	43.4	20,443	5,941	29.1	18,825	3,221	17.1	17,080	1,567	9.2

Source: U.S. Census Bureau, Current Population Survey, October 1984, 1989, 1993, 1997.

Table 4A. Use of Computers at Home by Adults: October 1984

Characteristics	With computer at home				
	All persons	Total	Percent ^a	Household	Percent ^b
Total, 16 years old and over	153,705	153,705	100	7,357	52.3
16 to 24 years	15,331	15,331	100	195	12.7
25 to 34 years	12,644	12,644	100	499	39.5
35 to 44 years	48,927	48,927	100	2,071	4.2
45 to 54 years	30,733	30,733	100	2,508	8.1
55 to 64 years	21,245	21,245	100	98	0.5
65 to 74 years	22,982	22,982	100	451	1.9
75 years old and over	22,507	22,507	100	189	0.8
Race:					
White	148,893	148,893	96.8	7,151	83.4
Black	16,233	16,233	10.6	268	1.6
Other	4,579	4,579	3.0	98	0.6
Ethnic origin:					
Hispanic	8,391	8,391	5.4	195	2.3
Non-Hispanic	145,314	145,314	94.6	7,162	83.5
Sex:					
Male	76,140	76,140	49.5	4,749	62.1
Female	77,565	77,565	50.5	2,608	33.4
Marital status:					
Married	102,119	102,119	66.5	5,437	73.9
Single	35,918	35,918	23.4	1,871	25.4
Divorced, widowed, or never married	15,668	15,668	10.1	649	8.7
Uses computer at work	24,172	24,172	15.7	2,449	33.3
Uses computer at home ^c	3,737	3,737	2.4	2,067	28.1
Video games	2,525	2,525	1.6	3,575	48.6
School assignments	1,123	1,123	0.7	1,281	17.4
Household records	3,117	3,117	2.0	2,117	28.8
Job activities	2,961	2,961	1.9	2,890	39.3
Word processing	2,548	2,548	1.6	2,449	33.3
Learning to use	4,575	4,575	3.0	4,575	62.3
Other use	1,851	1,851	1.2	1,041	14.0
Household type:					
Married couple	118,880	118,880	77.4	6,165	83.7
Female household, no spouse	24,889	24,889	16.2	311	4.1
Male household, no spouse	10,129	10,129	6.6	311	4.1
Region:					
Northwest	39,767	39,767	26.0	1,729	23.5
Midwest	42,703	42,703	27.8	1,992	27.1
South	57,531	57,531	37.6	2,719	36.9
West	33,704	33,704	22.1	1,915	25.9
Educational attainment:					
Kindergarten to 8 years	18,090	18,090	11.8	28	0.4
High school: 1 to 3 years	11,003	11,003	7.2	252	3.4
High school: 4 years	91,744	91,744	60.0	2,151	29.2
College: 1 to 3 years	30,792	30,792	20.1	2,275	30.9
College: 4 years or more	23,871	23,871	15.6	2,084	28.3

Characteristics	With computer at home				
	All persons	Total	Percent ^a	Household	Percent ^b
Employment status:					
Employed	111,089	111,089	72.3	6,268	85.3
Unemployed	42,616	42,616	27.7	1,089	14.7
Retired	15,513	15,513	10.1	407	5.5
Unemployed	2,594	2,594	1.7	254	3.4
Not in labor force	82,500	82,500	53.8	1,218	16.5
Family income:					
Less than \$10,000	25,468	25,468	16.6	344	4.7
\$10,000 to \$14,999	33,166	33,166	21.6	349	4.7
\$15,000 to \$19,999	19,298	19,298	12.6	636	8.6
\$20,000 to \$24,999	17,333	17,333	11.3	591	8.0
\$25,000 to \$34,999	23,406	23,406	15.3	1,039	14.0
\$35,000 to \$49,999	11,431	11,431	7.4	1,016	13.7
\$50,000 or more	15,611	15,611	10.2	1,081	14.5
Income not reported	8,550	8,550	5.6	251	3.4
Household size:					
1 to 3 persons	88,444	88,444	57.6	2,084	28.3
4 to 5 persons	47,179	47,179	30.7	3,719	50.5
6 and 7 persons	15,469	15,469	10.1	411	5.5
8 persons or more	2,518	2,518	1.6	74	1.0
Occupation:					
Managerial and professional	35,594	35,594	23.2	2,830	38.5
Technical, sales, and administrative support	25,331	25,331	16.5	1,037	14.0
Service	15,798	15,798	10.3	282	3.8
Production, craft, and repair	14,426	14,426	9.4	675	9.2
Operators, cleaners, and laborers	13,141	13,141	8.6	649	8.7
Farming, forestry, and fishing	2,892	2,892	1.9	64	0.9
Never worked in labor force/Retired	14,268	14,268	9.3	1,019	13.8
Industry:					
Agriculture	3,326	3,326	2.2	16	0.2
Mining	1,851	1,851	1.2	11	0.1
Construction	7,891	7,891	5.1	325	4.4
Manufacturing	33,527	33,527	21.8	1,932	26.3
Transportation, communication, and other public utilities	8,831	8,831	5.7	447	6.0
Wholesale and retail trade	22,230	22,230	14.5	1,106	15.0
Finance, insurance, and real estate	1,890	1,890	1.2	429	5.8
Government	28,194	28,194	18.4	2,336	31.7
Health and education	186	186	0.1	4	0.1
Public administration	8,187	8,187	5.3	312	4.2
Never worked/not in labor force/Retired	54,250	54,250	35.3	1,019	13.8

^a Data is less than 100,000 persons.
^b Multiple uses allowed for respondents.
^c Not reported and included in other.

Table 4B. Use of Computers at Home by Adults: October 1989

Characteristic	All persons	With computer at home			
		Total	Per-cent ¹	Uses it	Per-cent ¹
Total 18 years old and over	180,123	29,615	17.3	16,758	58.4
18 - 21 years	14,189	2,948	22.2	1,683	58.5
22 - 24 years	11,072	1,521	14.5	899	61.2
25 - 34 years	42,849	6,643	16.3	4,294	66.9
35 - 44 years	36,384	9,354	26.9	5,517	60.5
45 - 54 years	24,925	5,468	23.1	2,872	54.2
55 - 64 years	21,399	2,391	11.8	1,054	46.5
65 years old and over	29,306	1,290	4.6	440	36.0
Race:					
White	154,236	26,902	18.3	15,462	59.2
Black	20,007	1,573	8.4	733	50.6
Other	5,881	1,141	20.9	563	51.3
Hispanic origin:					
Hispanic	13,301	1,005	8.0	508	54.0
Non-Hispanic	166,823	28,611	18.0	16,249	58.6
Sex:					
Male	85,543	15,116	18.5	9,564	65.2
Female	94,581	14,500	16.2	7,194	51.4
Marital status:					
Married	108,442	20,602	19.9	11,576	57.7
Single	38,979	6,312	17.3	3,772	62.1
Divorced, widowed, or separated	32,703	2,702	8.6	1,410	55.8
Uses computer at work	40,245	12,563	31.7	9,324	75.1
Uses computer at home	16,758	16,758	100.0	16,758	100.0
Household type:					
Married couple	121,237	23,954	20.8	13,288	56.9
Female householder no spouse present	37,283	2,888	8.1	1,614	59.6
Male householder no spouse present	21,603	2,773	13.5	1,856	70.5
Region:					
Northeast	38,138	6,872	19.5	3,546	53.5
Midwest	43,785	6,855	16.2	3,928	59.2
South	61,691	8,957	15.2	4,995	57.5
West	36,510	6,931	20.0	4,289	63.8
Educational attainment:					
Elementary: 0 - 8 years	18,249	496	2.9	51	12.1
High school: 1 - 3 years	21,141	1,303	6.5	409	33.8
High school: 4 years	70,205	8,680	13.0	3,804	45.6
College: 1 - 3 years	35,617	7,929	23.4	4,664	60.5
College: 4 years or more	34,913	11,208	33.7	7,830	71.2
Employment status:					
Employed	115,669	23,055	20.9	13,818	61.6
Full-time	97,811	19,246	20.6	11,606	62.0
Part-time	17,858	3,808	22.4	2,211	59.4
Unemployed	5,734	731	13.5	400	58.4
Not in labor force	58,721	5,830	10.5	2,540	45.7

Characteristic	All persons	With computer at home			
		Total	Per-cent ¹	Uses it	Per-cent ¹
Family income:					
Less than \$10,000	28,163	1,623	6.1	889	58.6
\$10,000 - 14,999	19,572	926	4.9	485	54.2
\$15,000 - 19,999	29,171	2,798	9.9	1,472	55.1
\$20,000 - 24,999	14,781	2,125	14.9	1,147	56.4
\$25,000 - 34,999	26,316	4,613	18.1	2,472	55.5
\$35,000 - 49,999	27,196	7,475	28.5	4,359	59.9
\$50,000 - 74,999	8,963	2,976	34.6	1,845	63.2
\$75,000 or more	11,608	5,229	47.2	3,106	60.4
Income not reported	14,352	1,848	15.6	981	55.3
Household size:					
1-3 persons	118,759	15,010	13.3	9,361	64.3
4-5 persons	50,948	12,697	26.2	6,522	53.1
6-7 persons	8,613	1,586	19.6	769	49.7
8 persons or more	1,803	324	19.1	106	36.1
Occupation:					
Managerial and professional	31,800	10,092	33.2	7,050	71.3
Technical, sales, and administrative support	36,695	7,580	21.8	4,470	60.4
Service	15,306	1,871	12.8	782	43.8
Precision production, craft, and repair	14,513	1,965	14.1	954	50.9
Operators, laborers, and fabricators	19,021	1,864	10.3	782	44.5
Farming, forestry, and fishing	3,570	343	9.9	133	40.1
Never worked / not in labor force / Armed Forces	59,218	5,900	10.5	2,587	46.0
Industry:					
Agriculture	3,401	374	11.3	151	42.1
Mining	692	113	16.5	62	58.0
Construction	8,394	1,044	12.9	502	49.8
Manufacturing	22,574	4,112	19.0	2,527	63.4
Transportation, communication, and other public utilities	8,304	1,647	20.9	956	60.3
Wholesale and retail trade	24,061	4,001	17.5	2,185	56.5
Finance, insurance and real estate	8,112	1,954	25.5	1,257	65.6
Services	39,500	9,181	24.5	5,716	63.8
Forestry and fisheries	180	38	22.0	24	63.6
Public administration	5,688	1,252	23.2	791	64.7
Never worked / not in labor force / Armed Forces	59,218	5,900	10.5	2,587	46.0

¹Nonrespondents not included in base.

Table 4C. Use of Computers at Home by Adults: October 1993

Characteristics	All Persons	*Percent*		Number	% of with comp-uter
		Uses any-where	With comp-uter at home		
Persons 18 +	187,405	36.0	25.6	30,165	65.6
18 to 21 years	13,169	45.9	30.4	2,396	62.5
22 to 24 years	10,931	43.5	25.4	1,837	68.9
25 to 34 years	41,099	44.4	25.3	7,375	73.8
35 to 44 years	40,655	46.7	34.2	9,118	68.4
45 to 54 years	29,213	43.8	34.4	6,166	64.0
55 to 64 years	21,046	24.2	19.9	2,248	55.9
65 + years	31,292	4.9	8.4	1,027	41.2
RACE					
White	158,927	37.5	26.9	27,417	66.7
Black	21,361	25.0	13.8	1,582	56.8
Other	7,117	35.6	31.3	1,166	55.8
HISPANIC ORIGIN					
Hispanic	15,103	22.0	12.9	1,090	61.3
Not Hispanic	172,302	37.2	26.7	29,076	65.8
GENDER					
Male	89,484	36.2	27.1	16,301	70.0
Female	97,921	35.8	24.3	13,864	61.1
MARITAL STATUS					
Married	110,938	37.5	29.4	20,482	65.3
Single	40,927	42.5	25.3	6,811	68.8
Divorced/widowed	35,540	23.7	14.0	2,873	61.3
USES COMPUTER					
At work	51,106	100.0	43.2	17,493	79.4
At home	30,165	100.0	100.0	30,165	x
HOUSEHOLD TYPE					
Married couple	123,425	38.6	30.4	23,199	64.4
Female househlde	39,509	29.2	14.1	3,432	65.0
Male householder	24,125	33.8	20.0	3,516	76.5
REGION					
Northeast	38,368	34.3	25.6	5,774	62.2
Midwest	44,597	37.2	25.1	6,991	64.9
South	64,601	33.8	22.1	8,991	65.3
West	39,840	39.6	31.8	8,410	69.3
ATTAINMENT					
Less than 9th gr	14,609	1.5	4.5	76	12.7
9th to 11th grad	20,044	9.8	8.1	618	41.8
High school grad	66,278	25.1	16.7	5,170	49.3
Some coll/assoc	48,152	50.5	33.1	10,456	67.9
Bachelors +	38,322	63.4	48.7	13,845	76.9

Characteristics	All Persons	*Percent*		Number	% of with comp-uter
		Uses any-where	With comp-uter at home		
ENROLLMENT					
Not enrolled	172,075	32.8	23.9	25,004	63.6
Below college	1,555	47.9	22.0	225	71.8
College	13,775	74.7	47.4	4,936	77.7
FAMILY INCOME					
Less than \$10,000	23,976	11.4	6.8	1,065	68.6
\$10,000 - 14,999	18,716	15.2	8.4	986	64.8
\$15,000 - 19,999	13,960	23.0	12.5	1,058	62.4
\$20,000 - 24,999	15,842	27.7	15.3	1,464	62.3
\$25,000 - 34,999	27,724	36.5	21.2	3,661	64.3
\$35,000 - 49,999	29,987	46.3	31.3	5,855	65.4
\$50,000 - 74,999	25,382	60.3	45.9	7,561	67.1
\$75,000 and over	17,511	65.4	61.7	7,078	68.0
Income not repor	14,306	24.4	20.2	1,437	57.2
HOUSEHOLD SIZE					
1-3 persons	124,765	33.7	21.2	17,630	69.6
4-5 persons	51,999	43.1	35.8	11,146	62.1
6-7 persons	8,637	30.4	28.6	1,197	52.3
8+ persons	2,004	17.6	22.1	192	48.3
OCCUPATION					
Manag. & profes	34,508	69.6	47.9	12,336	77.0
Tech.sales.admin	39,546	63.6	31.6	8,309	69.2
Service	17,910	22.4	18.6	1,735	54.9
Prec.prod. craft	15,043	26.0	21.6	1,756	56.8
Operators, labor	19,399	18.8	15.2	1,445	51.9
Farm,forest,fish	3,646	14.7	16.7	343	59.5
Nevrwork/NILF/AF	57,353	10.7	15.4	4,241	50.9
INDUSTRY					
Agriculture	3,294	19.1	19.9	413	64.9
Mining	753	44.7	30.7	144	64.0
Construction	8,596	20.2	21.4	990	57.3
Manufacturing	21,634	43.0	27.3	3,972	69.4
Trans,comm, util	9,224	48.8	29.0	1,620	63.6
Wholesale/retail	26,193	40.8	25.4	3,901	61.8
Finance,insuranc	8,509	74.6	36.0	2,124	72.4
Services	45,363	51.2	35.2	11,173	72.6
Forest/fisheries	186	36.1	28.8	33	(B)
Public administr	6,301	70.6	34.1	1,554	74.0
Nevrwork/NILF/AF	57,353	10.7	15.4	4,241	50.9
EMPLOYMENT					
Employed	118,400	49.8	30.8	24,200	66.5
Full-time	98,877	51.4	30.6	20,171	69.4
Part-time	19,523	41.9	31.4	4,029	68.0
Unemployed	7,571	17.5	22.1	1,084	67.0
Not labor force	61,434	11.5	16.1	4,882	52.1

Table 4D. Use of Computers at Home by Adults: October 1997

Characteristic	Use computer at home				
	Total with computer at home				
		Yes		No	
		Number	Pct	Number	Pct
TOTAL	79,594	56,416	70.9	23,178	29.1
AGE					
18-24 years	10,788	7,562	70.1	3,226	29.9
25-34 years	16,442	13,049	79.4	3,393	20.6
35-44 years	22,609	16,713	73.9	5,897	26.1
45-54 years	16,854	11,687	69.3	5,167	30.7
55+ years	12,901	7,406	57.4	5,495	42.6
RACE					
White Not Hispanic	66,179	48,075	72.6	18,105	27.4
Black Not Hispanic	4,875	3,197	65.6	1,678	34.4
Other Not Hispanic	4,226	2,575	60.9	1,651	39.1
Hispanic	4,313	2,569	59.6	1,744	40.4
GENDER					
Male	39,646	28,598	72.1	11,048	27.9
Female	39,948	27,818	69.6	12,130	30.4
MARITAL STATUS					
Married Spouse Present	53,119	37,699	71.0	15,420	29.0
Married Spouse Absent	584	367	62.9	217	37.1
Widowed	1,933	883	45.7	1,050	54.3
Divorced	5,640	4,123	73.1	1,516	26.9
Separated	1,156	809	70.0	347	30.0
Never Married	17,161	12,534	73.0	4,627	27.0
USES COMPUTER AT WORK					
Yes	38,933	32,124	82.5	6,809	17.5
No	22,433	13,181	58.8	9,252	41.2
Without work	18,227	11,111	61.0	7,117	39.0
HOUSEHOLD TYPE					
Married couple household	61,127	42,786	70.0	18,341	30.0
Male householder	8,338	6,333	76.0	2,005	24.0
Female householder	10,128	7,297	72.0	2,831	28.0
REGION					
Northeast	15,308	10,440	68.2	4,868	31.8
Midwest	18,751	13,188	70.3	5,563	29.7
South	25,508	18,369	72.0	7,139	28.0
West	20,027	14,420	72.0	5,608	28.0
EDUCATIONAL ATTAINMENT					
Elementary: 0-8 years	1,296	305	23.6	991	76.4
Some H.S.: no diploma	3,203	1,560	48.7	1,643	51.3
H.S. Diploma/GED	20,397	11,829	58.0	8,568	42.0
Some College	26,031	19,090	73.3	6,940	26.7
Bachelors degree or more	28,667	23,632	82.4	5,035	17.6
EMPLOYMENT					
Employed	61,366	45,305	73.8	16,061	26.2
Unemployed	1,677	1,241	74.0	436	26.0
Not in Labor force	16,550	9,870	59.6	6,680	40.4
ENROLLMENT					
Not enrolled	68,839	47,816	69.5	21,023	30.5
Below college	645	491	76.2	154	23.8
College	10,109	8,109	80.2	2,001	19.8

Characteristic	Use computer at home				
	Total with computer at home				
		Yes		No	
		Number	Pct	Number	Pct
FAMILY INCOME					
Under \$5,000	1,344	965	71.8	379	28.2
\$5,000-9,999	1,394	995	71.4	399	28.6
\$10,000-14,999	1,988	1,288	64.8	700	35.2
\$15,000-19,999	2,017	1,355	67.2	662	32.8
\$20,000-24,999	3,281	2,223	67.8	1,058	32.2
\$25,000-34,999	8,333	5,672	68.1	2,662	31.9
\$35,000-49,999	13,684	9,414	68.8	4,270	31.2
\$50,000-74,999	19,282	13,924	72.2	5,358	27.8
\$75,000+	21,438	16,070	75.0	5,368	25.0
Not reported	6,832	4,510	66.0	2,322	34.0
HOUSEHOLD SIZE					
1 person	5,279	4,721	89.4	558	10.6
2-3 people	39,681	28,540	71.9	11,141	28.1
4-5 people	30,014	20,486	68.3	9,528	31.7
6-7 people	3,889	2,286	58.8	1,603	41.2
8 or more people	731	383	52.4	348	47.6
OCCUPATION					
Neverwork/NILF	15,808	9,367	59.3	6,441	40.7
Manag. & professional	25,969	21,373	82.3	4,595	17.7
Tech., sales, admin.	20,039	14,902	74.4	5,137	25.6
Services	5,558	3,451	62.1	2,107	37.9
Prec. prod., craft, repair	5,602	3,581	63.9	2,021	36.1
Operators, laborers, fab.	5,413	3,046	56.3	2,367	43.7
Farm, forest, fish	1,205	696	57.8	509	42.2
INDUSTRY					
Neverwork/NILF	15,808	9,367	59.3	6,441	40.7
Agriculture/forestry/fisheries	1,371	841	61.3	530	38.7
Mining	252	183	69.6	80	30.4
Construction	3,496	2,201	63.0	1,295	37.0
Manufacturing	9,314	6,771	72.7	2,543	27.3
Trans., comm., utilities	4,460	3,115	69.8	1,346	30.2
Wholesale/retail trade	11,097	7,660	69.0	3,437	31.0
Finance/insurance/real estate	4,848	3,826	78.9	1,023	21.1
Services	25,924	20,079	77.5	5,845	22.5
Public administration	3,012	2,374	78.8	638	21.2

Table 5A. Uses of Computers at Home by Adults: October 1984

(Numbers in thousands)

Characteristic	All persons	Persons using computers at home	Video games	School		Household records	Percent	Job related	Percent	Word processing	Percent	Learning to use	Percent	Other	Median number of uses reported	Median days per week used
				Enrolled	Not enrolled											
Total, 18 years old and over...	169,786	7,757	3,520	731	508	3,117	40.2	2,060	30.9	2,549	32.9	4,575	59.0	1,481	1.8	2.0
18 to 21 years...	15,387	744	463	204	20	13.2	13.2	78	10.5	178	23.9	399	53.6	117	1.5	2.0
22 to 24 years...	12,644	490	264	102	27	39.5	39.5	147	29.6	147	29.6	204	57.3	96	1.8	2.9
25 to 34 years...	40,227	2,621	1,266	231	194	1,141	43.5	1,005	38.3	852	32.5	1,590	60.7	517	1.9	2.7
35 to 44 years...	30,623	2,508	1,129	96	194	1,017	40.6	1,018	40.6	866	34.5	1,489	59.4	483	1.8	2.4
45 to 54 years...	22,246	880	272	57	414	47.0	42.2	422	48.0	337	38.3	512	58.2	162	1.8	2.6
55 to 64 years...	22,052	401	112	8	198	49.4	42.1	169	42.1	146	36.4	236	58.9	70	1.7	2.7
65 years old and over...	26,607	108	20	-	54	50.0	17.6	23	21.3	23	21.3	66	61.1	35	1.3	2.7
Race:																
White...	146,693	7,151	3,222	659	443	2,879	40.3	2,660	37.2	2,387	33.4	4,201	58.7	1,350	1.8	2.6
Black...	18,403	406	216	43	62	44.1	29.6	128	31.5	85	20.9	248	61.1	91	1.9	2.7
Other...	4,690	199	88	29	12	29.6	36.2	76	38.2	76	38.2	126	63.3	40	1.8	2.1
Hispanic origin:																
Hispanic...	9,362	105	71	12	16	38.8	29.1	48	29.1	45	27.3	102	61.8	22	1.5	2.8
Non-Hispanic...	160,424	7,592	3,455	719	492	3,053	40.2	2,812	37.0	2,504	33.0	4,472	58.9	1,458	1.8	2.6
Sex:																
Male...	80,240	4,748	2,289	487	271	2,044	43.0	2,034	42.8	1,560	32.9	2,793	58.8	1,002	1.9	2.8
Female...	89,546	3,009	1,238	244	237	1,073	35.7	826	27.5	989	32.9	1,782	59.2	478	1.6	2.2
Marital status:																
Married...	103,110	5,432	2,479	269	363	2,336	43.0	2,025	37.3	1,739	32.0	3,230	59.5	1,015	1.8	2.5
Single...	35,946	1,878	794	430	78	478	28.5	544	32.4	560	33.4	931	55.5	333	1.8	2.9
Divorced, widowed, or separated...	30,730	648	253	27	60	40.8	44.9	291	44.9	250	38.8	414	63.9	132	2.1	3.0
Uses computer at work...	24,172	3,440	1,319	263	261	1,632	47.4	2,050	59.6	1,503	43.7	1,855	53.9	774	2.2	2.9
Household type:																
Married couple...	116,980	6,185	2,927	680	309	2,400	38.8	2,135	34.5	1,928	31.2	3,019	58.5	1,144	1.7	2.5
Female household, no spouse present...	34,080	641	279	50	82	232	36.2	235	36.7	196	30.6	400	62.4	124	1.8	2.7
Male household, no spouse present...	18,726	931	320	94	67	485	52.1	490	52.0	425	46.0	550	59.7	213	2.2	3.1
Region:																
Northeast...	36,867	1,726	801	102	101	34.7	35.7	617	45.8	458	20.8	906	58.0	333	1.0	2.6
Midwest...	42,063	1,952	957	198	111	754	30.8	643	32.8	500	30.7	1,239	63.5	391	1.8	2.4
South...	57,531	2,198	1,026	194	141	900	41.2	773	35.2	659	30.0	1,206	57.6	413	1.7	2.8
West...	33,325	1,880	743	177	155	858	45.8	827	44.0	832	44.3	1,104	68.7	342	2.1	2.8
Educational attainment:																
Elementary: 0 to 8 years...	20,655	40	18	2	8	20.0	20.0	8	20.0	10	25.0	22	55.0	5	1.4	4.5
High school: 1 to 3 years...	21,888	252	156	39	11	60	26.2	20	7.9	39	15.5	129	51.2	29	1.2	2.8
High school: 4 years...	67,440	2,157	1,202	127	114	748	34.7	442	20.5	456	21.1	1,371	63.6	339	1.5	2.5
College: 1 to 3 years...	30,952	2,225	1,074	337	130	951	42.7	707	31.8	678	30.5	1,373	61.7	473	1.9	2.8
College: 4 years or more...	28,851	3,064	1,076	225	251	1,345	43.8	1,083	54.6	1,305	44.3	1,079	54.4	636	2.0	2.7
Employment status:																
Employed...	103,980	6,288	2,863	473	403	2,626	41.8	2,702	43.0	2,157	34.3	3,076	58.5	1,213	1.9	2.6
Full-time...	85,457	5,355	2,425	253	375	2,304	44.1	2,429	45.4	1,800	34.7	3,106	58.0	1,072	1.9	2.7
Part-time...	18,523	833	438	219	28	262	28.1	274	29.4	297	31.8	670	61.1	141	1.7	2.5
Unemployed...	7,463	254	124	26	36	88	34.6	42	10.5	68	20.8	163	64.2	47	1.6	2.9
Not in labor force...	58,343	1,215	540	233	70	404	33.3	115	9.5	323	20.6	730	60.6	221	1.5	2.4

Uses reported

Table 5A. Uses of Computers at Home by Adults: October 1984
(Numbers in thousands)

Characteristic	All persons	Persons using computers at home	Uses reported ¹													Median number of uses reported	Median days per week used
			Video games	Percent	School		Household records	Percent	Job related	Percent	Word processing	Percent	Learning to use	Percent	Other		
					Enrolled	Not enrolled											
Family income:																	
Less than \$10,000	35,358	344	175	50.9	73	28	124	36.0	86	25.0	99	28.8	242	70.3	58	1.8	3.2
\$10,000 to \$14,999	23,105	389	188	48.3	36	24	172	44.2	149	38.3	115	29.6	262	67.4	78	1.9	2.9
\$15,000 to \$19,999	19,208	546	258	47.3	36	30	213	39.0	166	30.4	127	23.3	365	66.8	88	1.7	2.9
\$20,000 to \$24,999	17,393	704	381	54.1	58	47	277	39.3	212	30.1	184	26.1	436	61.9	133	1.8	2.6
\$25,000 to \$34,999	27,906	1,689	846	50.1	117	122	682	40.4	531	31.4	456	27.0	1,008	59.7	349	1.7	2.6
\$35,000 to \$49,999	21,432	1,854	843	45.5	177	121	723	39.0	751	40.5	665	35.9	1,120	60.4	368	1.9	2.6
\$50,000 or more	15,031	1,881	684	36.4	209	99	798	42.4	832	44.2	785	41.7	936	49.8	350	1.8	2.5
Income not reported	9,553	351	151	43.0	26	37	130	37.0	133	37.9	119	33.0	206	58.7	56	1.7	2.3
Household size:																	
1 to 3 persons	108,407	3,884	1,538	39.6	353	251	1,832	47.2	1,628	41.9	1,443	37.2	2,372	61.1	764	2.0	2.8
4 and 5 persons	49,270	3,328	1,665	50.0	288	221	1,122	33.7	1,087	32.7	969	29.1	1,923	57.8	627	1.7	2.4
6 and 7 persons	9,589	471	276	58.6	72	34	135	28.7	132	28.0	119	25.3	239	50.7	79	1.5	2.5
8 persons or more	2,519	74	47	63.5	18	1	29	39.2	12	16.2	18	24.3	41	55.4	11	1.8	2.3
Occupation:																	
Managerial and professional ..	26,594	2,930	1,101	37.6	196	248	1,317	44.9	1,652	56.4	1,278	43.6	1,633	55.7	620	2.1	2.7
Technical, sales, and admin- istrative support	35,031	2,097	954	45.5	196	107	832	39.7	748	35.7	642	30.6	1,188	56.7	375	1.7	2.6
Service	15,746	362	214	59.1	54	15	113	31.2	57	15.7	78	21.5	237	65.5	53	1.5	2.5
Precision production, craft, and repair	14,420	635	364	57.3	28	31	275	43.3	202	31.8	140	22.0	422	66.5	119	1.8	2.4
Operators, laborers, and fab- ricators	19,741	569	356	62.6	57	41	196	34.4	78	13.7	112	19.7	395	69.4	109	1.6	2.7
Farming, forestry, and fish- ing	3,890	84	40	47.6	9	2	30	35.7	34	40.5	17	20.2	54	64.3	7	1.5	2.8
Never worked/not in labor force/Armed Forces	54,358	1,079	490	46.0	192	63	354	32.8	89	8.2	282	26.1	646	59.9	197	1.5	2.4
Industry:																	
Agriculture	3,576	75	28	37.3	6	3	31	41.3	40	53.3	20	26.7	46	61.3	5	1.6	2.9
Mining	1,061	71	44	62.0	3	5	34	47.9	26	36.6	27	38.0	42	59.2	15	2.1	2.6
Construction	7,897	335	182	54.3	18	15	150	44.8	146	43.6	93	27.8	229	68.4	51	2.0	2.5
Manufacturing	23,522	1,483	705	47.5	96	78	684	46.1	621	41.9	466	31.4	842	56.8	338	1.9	2.6
Transportation, communica- tion, and other public utili- ties	8,031	472	236	50.0	31	27	242	51.3	144	30.5	133	28.2	323	68.4	81	1.9	2.7
Wholesale and retail trade ..	23,730	1,166	591	50.7	125	62	398	34.1	348	29.8	306	26.2	663	58.9	206	1.6	2.6
Finance, insurance, and real estate	7,096	423	164	38.8	29	19	192	45.4	179	42.3	151	35.7	229	54.1	91	1.9	2.5
Service	35,184	2,336	920	39.4	212	213	892	38.2	1,177	50.4	874	41.7	1,364	58.4	442	1.9	2.7
Forestry and fisheries	165	4	-	(B)	-	-	2	(B)	3	(B)	3	(B)	3	(B)	1	(B)	(B)
Public administration	5,167	313	159	50.8	18	23	139	44.4	80	27.5	93	20.7	108	60.1	54	1.7	2.5
Never worked/not in labor force/Armed Forces	54,358	1,079	496	46.0	192	63	354	32.8	89	8.2	282	26.1	646	59.9	197	1.5	2.4

B Base is less than 200,000 persons.

¹Multiple uses allowed by respondents.

BBase is less than 200,000 persons

Characteristic	All persons	Uses at home	Per-centage	Word processing	Household records	School		Work	Home business	Bulletin board	Bookkeeping	Learning to use	Spreadsheet	Programming	Graphics	Video games	Teletyping	Data base	Electronic mail	Other/ don't know
						Enrolled	Not enrolled													
Total 18 years old and over	180,127	16,758	9.3	61.6	36.7	12.5	7.7	12.5	11.4	5.7	19.5	19.5	20.5	19.1	18.8	44.1	1.5	17.1	5.3	13.0
18 - 24 years	14,189	1,613	11.9	53.9	31.9	48.5	2.7	2.1	1.6	4.3	14.5	14.5	14.5	14.5	13.3	55.9	0.6	5.8	1.6	8.0
25 - 34 years	11,072	899	8.1	62.8	27.6	28.8	6.3	6.3	6.5	5.9	17.7	18.9	23.6	22.9	21.1	56.0	0.7	16.0	3.9	9.3
35 - 44 years	42,849	4,294	10.0	60.9	30.6	12.9	6.4	14.5	12.2	6.6	21.0	20.6	21.2	22.9	20.8	47.7	2.1	18.3	6.2	13.6
45 - 54 years	36,304	5,517	15.2	63.7	30.5	10.3	6.1	14.5	12.3	6.0	20.6	19.1	21.2	19.0	19.0	45.5	1.4	18.2	5.8	13.4
55 - 64 years	24,925	2,872	11.5	63.6	41.1	4.2	10.0	15.5	14.2	5.7	19.1	17.5	22.6	17.7	17.7	34.1	1.8	19.8	5.6	13.4
65 years old and over	29,306	440	1.5	58.2	50.0	0.7	4.1	4.5	15.2	2.0	5.7	22.3	14.5	14.3	13.2	27.3	0.0	10.9	4.1	19.1
Race:																				
White	154,236	15,462	10.0	62.4	36.1	12.4	7.5	12.9	11.5	5.9	19.2	19.2	21.1	19.0	19.0	43.8	1.5	17.3	5.4	12.9
Black	20,007	733	3.7	42.7	40.7	12.3	11.3	5.5	12.0	3.5	22.4	12.1	22.4	22.4	15.1	46.7	1.2	12.3	3.1	18.4
Other	5,881	563	9.6	62.7	32.3	17.2	7.5	11.2	8.2	2.0	23.3	17.1	17.8	16.2	15.1	47.6	1.4	18.7	5.2	10.8
Hispanic origin:																				
Hispanic	13,301	508	3.8	58.7	39.6	13.6	7.9	8.1	0.5	2.6	18.7	19.5	22.6	18.7	13.2	43.7	0.8	15.4	4.5	13.2
Non-Hispanic	166,823	16,249	9.7	61.7	36.1	12.5	7.7	12.7	11.5	5.8	19.4	20.6	20.6	19.1	18.9	44.1	1.5	17.2	5.3	13.0
Sex:																				
Male	85,543	9,564	11.2	59.2	39.5	11.6	6.8	16.1	12.7	7.1	19.7	19.7	25.1	24.6	22.4	49.6	1.8	20.6	6.6	14.0
Female	94,581	7,194	7.6	64.7	31.9	13.9	8.9	7.9	9.7	3.9	14.5	19.3	14.5	11.7	13.9	36.7	1.1	12.5	3.5	11.7
Marital status:																				
Married	108,442	11,576	10.7	62.0	41.3	6.1	8.5	13.4	13.1	5.6	20.0	21.6	21.6	18.9	19.0	43.0	1.6	17.6	5.5	13.0
Single, divorced, widowed, or separated	38,979	3,772	9.7	60.3	19.2	32.4	4.9	8.0	5.9	6.0	17.0	15.9	10.6	10.6	18.5	49.0	1.0	13.9	3.9	12.4
Household type:																				
Married couple	121,237	13,288	11.0	60.5	36.4	10.8	7.8	11.9	11.6	5.3	19.2	19.6	18.1	18.1	18.0	44.5	1.5	15.9	5.0	12.7
Female householder, no spouse present	37,283	1,614	4.3	62.8	32.0	22.7	8.9	11.2	10.3	4.8	21.8	19.3	16.9	17.9	17.9	40.0	1.1	18.1	4.2	14.1
Male householder, no spouse present	21,603	1,856	8.6	68.2	38.3	16.2	6.1	18.3	10.6	9.2	19.5	28.0	28.0	28.3	24.6	44.7	2.0	25.4	8.2	14.4
Region:																				
Northeast	30,138	3,546	9.3	60.4	33.8	10.9	8.1	11.8	10.4	4.4	20.0	18.5	18.8	17.6	17.6	44.6	1.3	15.7	5.5	14.5
Midwest	43,785	3,928	9.0	60.5	35.1	14.0	7.6	11.2	12.1	5.8	20.3	20.6	18.6	18.3	20.1	48.1	1.5	16.9	4.4	10.7
South	61,691	4,995	8.1	56.6	37.6	12.2	7.7	12.0	10.6	6.6	18.5	18.5	19.8	18.3	18.3	42.1	1.5	15.8	4.4	15.2
West	36,510	4,289	11.7	69.3	37.6	13.0	7.5	14.0	12.5	5.7	19.6	18.9	18.9	19.0	19.0	42.0	1.7	20.0	6.9	11.4
Educational attainment:																				
Elementary, 0 - 8 years	18,249	51	0.3	33.3	23.5	3.9	9.8	3.9	3.9	3.9	13.7	13.7	5.9	3.9	17.6	62.7	0.0	5.9	3.9	7.8
High school, 1 - 3 years	21,141	409	1.9	35.5	25.7	15.4	2.9	5.4	6.4	2.0	29.3	29.3	8.1	13.0	11.2	61.1	2.4	7.3	3.7	15.4
High school, 4 years	70,205	3,804	5.4	46.0	33.6	9.3	4.5	6.9	11.0	4.5	22.6	22.6	12.1	15.7	13.7	54.2	0.9	10.3	3.2	12.0
College, 1 - 3 years	35,617	4,664	13.1	60.4	35.0	22.8	5.8	9.3	10.7	6.4	20.1	18.9	19.4	18.3	18.3	45.6	2.2	16.2	5.4	12.2
College, 4 years or more	34,913	7,830	22.4	71.4	38.8	7.9	10.7	17.7	12.3	6.1	10.4	26.3	21.0	21.0	21.9	37.2	1.3	21.6	6.3	13.9
Employment status:																				
Employed	115,669	13,818	11.9	61.7	37.5	9.8	8.4	14.7	12.5	6.0	19.2	19.2	22.2	20.2	19.6	44.4	1.7	18.5	5.8	13.0
Full-time	97,811	11,606	11.9	61.1	40.2	5.8	9.1	16.2	13.0	6.3	19.6	19.6	23.9	21.8	20.7	45.0	1.9	20.0	6.4	13.7
Part-time	17,858	2,211	12.4	64.6	22.9	30.9	5.0	6.7	8.9	4.2	16.9	16.9	13.1	12.0	13.6	41.7	0.6	10.4	2.5	9.7
Unemployed	5,734	400	7.0	63.5	33.0	13.3	9.3	4.5	10.5	2.3	23.3	23.3	19.5	20.8	20.0	52.8	0.8	13.8	0.5	14.0
Not in labor force	58,721	2,540	4.3	60.8	29.8	27.2	3.6	2.2	5.4	4.8	6.5	20.7	11.8	12.6	14.2	40.5	0.5	10.3	3.5	12.8

Use of home computer

Table 5B. Uses of Computers at Home by Adults: October 1989

(Numbers in thousands)

Characteristic	All persons	Uses computer at home	Percent	Use of home computer ¹																
				Word processing	Household records	School		Work	Home business	Bulletin board	Desktop publishing	Learning to use	Spreadsheet	Programming	Graphics	Video games	Telemarketing	Database	Electronic mail	Other/don't know
						Enrolled	Not enrolled													
Family income:																				
Less than \$10,000	28,163	809	3.2	69.3	33.7	31.3	8.8	12.6	10.7	4.6	9.6	28.0	25.3	21.5	25.1	41.4	0.9	21.8	3.5	10.7
\$10,000 - 14,999	19,572	485	2.5	57.7	33.8	21.0	7.4	6.8	11.3	6.0	2.7	29.7	18.4	21.9	19.2	51.1	1.9	14.4	3.9	8.5
\$15,000 - 19,999	29,171	1,472	5.0	52.1	32.8	14.9	6.2	9.0	11.5	6.2	8.8	22.6	17.0	17.3	16.0	51.4	0.6	14.7	3.6	16.4
\$20,000 - 24,999	14,781	1,147	7.8	56.5	37.5	12.0	4.7	7.8	9.0	5.8	7.6	20.4	16.9	20.6	17.3	50.3	1.5	14.9	3.3	12.5
\$25,000 - 34,999	26,316	2,472	9.4	56.1	36.0	12.2	8.3	10.3	11.8	5.9	8.3	21.8	18.2	20.0	17.2	48.0	1.7	16.2	5.2	14.5
\$35,000 - 49,999	27,196	4,359	16.0	62.2	37.2	11.2	9.2	13.3	11.8	6.3	9.7	20.7	20.8	20.9	19.7	45.9	1.5	18.3	5.6	11.4
\$50,000 - 74,999	8,963	1,845	20.6	66.4	36.2	9.6	7.9	14.2	8.8	5.7	7.3	15.6	20.1	17.6	19.2	42.1	1.1	16.0	4.7	12.6
\$75,000 or more	11,608	3,106	26.8	68.2	37.6	9.4	6.5	17.3	12.5	4.8	9.0	13.1	25.1	16.6	19.3	36.4	2.1	18.6	7.5	13.1
Income not reported	14,352	981	6.8	57.9	34.9	10.9	8.5	10.5	13.0	5.4	9.2	17.6	18.5	16.3	15.7	34.5	1.8	15.0	5.2	16.9
Household size:																				
1-3 persons	118,759	9,381	7.9	64.6	39.6	12.8	6.3	14.4	12.0	5.9	9.2	20.1	23.9	20.5	19.9	39.7	1.6	19.6	6.2	13.4
4-5 persons	50,948	6,522	12.8	58.4	32.9	12.1	9.5	10.4	10.9	5.5	8.0	19.2	17.0	17.6	17.6	49.2	1.4	14.7	4.4	12.8
6-7 persons	8,613	769	8.9	53.1	23.8	13.9	10.0	8.5	8.7	5.2	6.0	17.0	11.4	15.3	14.8	53.2	0.5	9.9	1.8	9.1
8 persons or more	1,803	106	5.9	50.9	26.4	8.5	4.7	12.3	11.3	1.9	15.1	7.5	5.7	11.3	15.1	41.5	0.0	5.7	0.9	18.9
Occupation:																				
Managerial & professional	31,800	7,050	22.2	69.2	39.1	7.1	11.5	18.2	12.3	6.3	10.6	17.9	26.8	22.0	22.3	38.8	1.5	22.2	6.5	13.6
Technical, sales, and administrative support	36,695	4,470	12.2	59.8	37.6	11.9	6.0	13.6	13.8	5.5	8.4	18.8	19.5	19.1	17.9	45.4	2.2	16.9	5.5	13.0
Service	15,306	782	5.1	56.0	29.3	22.6	5.2	5.1	10.4	6.3	7.3	21.5	15.2	19.3	14.6	56.1	2.2	12.0	2.6	14.3
Precision production, craft, and repair	14,513	954	6.6	41.0	40.0	7.9	4.4	8.1	12.1	6.3	6.9	25.9	17.4	21.9	16.4	61.0	1.0	12.2	4.6	11.8
Operators, laborers, and fabricators	19,021	782	4.1	40.2	27.5	12.8	3.1	4.2	7.3	4.9	3.3	22.3	9.7	13.2	15.7	61.9	1.0	7.7	2.9	9.7
Farming, forestry and fishing	3,570	133	3.7	45.1	26.3	13.5	4.5	6.0	25.6	0.8	6.8	24.8	9.8	6.8	8.3	35.3	0.0	10.5	2.3	9.0
Never worked / not in labor force / Armed Forces	59,218	2,587	4.4	60.4	29.8	27.0	3.8	2.2	5.3	4.7	6.4	21.0	11.8	12.6	14.2	41.2	0.5	10.4	3.4	12.6
Industry:																				
Agriculture	3,401	151	4.4	54.3	27.8	6.6	2.6	16.6	31.8	1.3	6.6	17.9	11.9	7.3	11.9	34.4	0.0	9.9	2.0	11.9
Mining	692	62	9.0	37.1	41.9	4.8	3.2	16.1	12.9	6.5	11.3	12.9	17.7	14.5	19.4	51.6	0.0	16.1	9.7	17.7
Construction	8,394	502	6.0	45.4	38.2	4.2	3.6	9.4	21.7	2.8	4.2	21.1	12.7	17.1	15.3	43.2	0.2	10.8	2.4	9.6
Manufacturing	22,574	2,527	11.2	57.2	42.1	8.0	6.1	18.4	9.5	7.0	9.3	18.9	27.5	26.4	24.1	52.6	1.6	21.1	7.0	13.0
Transportation, communication and other public utilities	8,304	956	11.5	53.6	39.6	7.4	3.5	14.0	11.1	4.8	8.8	20.4	23.5	22.0	18.9	52.1	3.0	17.7	7.4	11.0
Wholesale and retail trade	24,061	2,185	9.1	52.7	34.6	15.1	5.0	12.9	11.6	5.0	6.4	20.4	19.0	18.0	17.6	51.0	2.4	14.5	5.2	11.2
Finance, insurance and real estate	8,112	1,257	15.5	64.2	39.2	6.8	5.3	18.2	15.5	4.6	9.8	19.6	26.7	17.7	17.9	39.1	1.9	20.9	7.1	13.2
Services	39,500	5,716	14.5	69.2	34.0	11.0	12.8	13.5	12.9	6.5	10.1	18.1	20.5	19.0	19.7	38.5	1.3	18.5	5.0	14.4
Forestry and fisheries	180	24	13.3	75.0	16.7	0.0	8.3	0.0	0.0	0.0	4.2	50.0	4.2	20.8	4.2	50.0	0.0	8.3	0.0	0.0
Public administration	5,688	791	13.9	67.4	50.2	6.8	9.0	10.4	9.6	6.8	10.1	22.6	25.5	23.1	18.5	46.6	2.1	22.6	5.2	13.5
Never worked / not in labor force / Armed Forces	59,218	2,587	4.4	60.4	29.8	27.0	3.8	2.2	5.3	4.7	6.4	21.0	11.8	12.6	14.2	41.2	0.5	10.4	3.4	12.6

¹Multiple uses allowed by respondents.

PERCENT		AGE												RACE												HISPANIC ORIGIN												MARRITAL STATUS												HOUSEHOLD TYPE												REGION												ATTAINMENT																																																																																																																																																																																																											
Number of persons		Total												White												Black												Other												Not Hispanic												Hispanic												Male												Female												Married												Single												Other												Married couple												Female householder												Male householder												Northeast												Midwest												South												West												Less than 9th grade												9th to 11th grade												High school graduate												Some college, assoc.												Bachelor's degree +											
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
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187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
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187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
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187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6	5.8	22.1	20.6	15.7	32.2	19.6	15.2	17.1	20.3	36.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	21.0	21.0	36.1	20.3	5.5	15.2	17.1	17.1	9.4	4.3	6.2	4.8	6.3	13.1	15.2	3.1	5.1	7.8	12.2	6.0	9.4	20.3	32.2	19.6	187,405	30,165	16.1	4,411	8,400	2,623	4,956	6,591	2,587	1,745	6,682	6,217	4,722	9,704	5,907																																																																																																																																																																																																																					
187,405	30,165	16.1	14.6	27.8	0.7	16.4	21.8	8.6																																																																																																																																																																																																																																																																													

Employed	110,400	24,200	20.4	15.9	29.7	9.2	17.3	22.9	10.4	6.3	23.9	21.4	17.0	33.1	19.2
Full-time	98,877	20,171	20.4	17.2	31.7	9.8	18.3	24.0	11.9	6.8	25.7	22.5	17.2	35.1	19.6
Part-time	19,523	4,029	20.6	9.5	19.7	6.0	12.4	17.1	2.6	3.7	16.2	16.2	22.7	22.7	17.3
Unemployed	7,571	1,084	14.3	13.0	19.3	6.8	15.0	20.8	2.2	5.9	16.7	23.6	12.1	29.5	26.4
Not in labor force	61,434	4,882	7.9	8.6	20.4	6.6	12.4	16.9	1.1	3.1	14.6	15.9	9.6	28.3	20.0
ENROLLMENT															
Not enrolled	172,075	25,004	14.5	15.2	30.7	9.0	17.3	22.8	9.3	6.0	23.2	21.3	16.9	35.1	20.0
Below college	1,555	225	14.5	4.3	6.5	2.3	3.9	3.1	1.6	1.6	4.7	8.9	10.0	2.8	22.4
College	13,775	4,936	35.8	12.0	14.5	7.3	12.5	18.0	5.2	4.7	17.5	17.9	9.4	18.6	17.5
COMPUTER USE															
Uses at work	51,106	17,493	34.2	19.1	32.6	10.4	18.8	26.0	13.7	7.1	27.5	23.6	17.8	36.2	18.2
FAMILY INCOME															
Less than \$10,000	23,976	1,065	4.4	7.7	17.6	8.8	12.0	16.6	3.6	5.6	16.8	20.3	11.8	22.7	20.3
\$10,000 to 14,999	18,716	986	5.3	14.2	24.8	9.2	15.8	21.7	4.9	7.6	16.2	22.5	13.4	27.8	23.1
\$15,000 to 19,999	13,960	1,058	7.6	10.6	24.4	10.4	12.9	14.7	3.4	6.1	15.8	17.7	15.7	30.0	23.3
\$20,000 to 24,999	15,842	1,464	9.2	11.1	31.9	9.4	18.7	20.6	4.3	6.8	23.4	22.8	19.2	32.7	25.3
\$25,000 to 34,999	27,724	3,661	13.2	12.4	28.8	9.2	18.2	21.3	6.9	6.7	22.3	21.9	16.4	34.0	21.8
\$35,000 to 49,999	29,987	5,855	19.5	11.6	26.7	8.9	15.3	19.4	7.7	5.0	20.0	18.6	15.0	32.3	19.2
\$50,000 to 74,999	25,382	7,561	29.8	15.0	28.1	0.5	15.4	22.9	9.2	5.7	23.4	21.0	15.5	32.4	19.2
\$75,000 and over	17,511	7,078	40.4	20.6	29.9	8.5	18.1	26.0	12.9	5.9	26.0	21.6	15.6	32.6	17.6
Income not reported	14,306	1,437	10.0	13.3	27.1	6.3	17.5	17.5	6.0	4.3	16.4	17.6	18.2	34.9	16.1
HOUSEHOLD SIZE															
1-3 persons	124,765	17,630	14.1	16.8	29.6	9.6	17.9	23.1	9.3	6.4	23.8	22.0	16.1	34.5	19.2
4-5 persons	51,999	11,146	21.4	12.0	25.7	7.7	14.7	20.4	7.8	5.0	20.2	18.7	15.0	29.0	19.9
6-7 persons	8,637	1,197	13.9	9.2	23.3	5.9	11.6	18.0	6.1	3.3	17.8	18.2	15.7	29.8	21.0
8 persons or more	2,004	192	9.6	4.6	20.6	3.9	14.0	12.9	3.3	9.4	12.8	22.5	13.6	21.8	24.5
OCCUPATION															
Managerial & professional	34,508	12,336	35.7	20.2	30.8	10.1	18.7	26.5	12.9	7.3	27.4	24.1	16.6	34.3	17.4
Tech. sales, admin	39,546	8,309	21.0	13.5	28.5	8.2	16.8	21.8	9.1	5.5	22.2	19.4	17.0	32.7	19.7
Service	17,910	1,735	9.7	7.7	18.0	6.9	12.9	13.8	2.8	2.9	15.0	15.8	11.4	25.3	25.1
Prec. prod. craft, repair	15,043	1,756	11.7	9.7	32.4	10.2	15.5	18.8	7.0	6.8	19.9	19.2	19.8	34.8	24.8
Operators, laborers, fab.	19,399	1,445	7.4	5.4	22.7	7.2	13.6	11.9	1.7	4.8	11.1	18.6	13.9	28.0	23.9
Farm, forest, fish	3,646	343	9.4	10.9	41.9	3.2	10.4	11.4	0.0	4.7	18.8	14.2	32.3	33.2	18.7
Never worked, NILF, AF	57,353	4,241	7.4	8.9	20.7	6.7	12.3	17.3	1.1	3.1	14.5	16.4	9.5	28.1	19.9
INDUSTRY															
Agriculture	3,294	413	12.5	10.0	44.5	2.9	6.3	12.4	2.6	5.0	17.7	13.5	31.4	38.1	16.5
Mining	753	144	19.2	21.1	48.1	20.2	21.2	35.2	16.2	11.0	28.0	26.2	22.8	41.2	24.5
Construction	8,596	890	11.5	13.3	39.0	7.8	17.1	20.8	6.4	0.2	20.5	18.5	30.9	32.8	20.1
Manufacturing	21,634	3,972	18.4	17.5	31.5	8.6	15.8	22.2	12.0	7.9	24.8	22.9	12.3	38.1	21.0
Trans. comm. other public util	9,224	1,620	17.6	17.0	30.8	9.5	15.5	24.8	13.5	6.4	22.1	20.0	15.0	36.3	20.6
Wholesale/retail trade	26,193	3,901	14.9	11.2	25.2	8.3	15.2	17.3	7.2	5.1	19.3	18.3	16.7	28.6	19.4
Finance, insurance, real estate	8,509	2,124	25.0	21.1	32.9	5.9	17.5	23.7	13.5	4.5	24.2	19.7	19.0	34.2	17.6
Services	45,363	11,173	24.6	15.0	26.3	9.9	10.5	23.9	9.4	6.2	23.5	22.2	16.6	30.7	18.8
Forestry/fisheries	186	33	17.9	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)
Public administration	6,301	1,554	24.7	18.6	32.5	11.1	18.6	25.9	8.1	5.9	32.4	25.3	13.4	37.8	22.8
Never worked, NILF, AF	57,353	4,241	7.4	8.9	20.7	6.7	12.3	17.3	1.1	3.1	14.5	16.4	9.5	28.1	19.9

[illegible]

EMPLOYMENT	Employed	Full-time	Part-time	Unemployed	Not in labor force
	15.4	16.5	10.1	15.0	10.4
ENROLLMENT	6.4	6.8	4.2	4.1	1.5
Not enrolled	19.1	20.1	13.8	16.2	13.9
Below college	19.7	18.6	4.9	10.6	11.6
College	6.3	1.6	1.5	25.4	1.5
COMPUTER USE	17.3	7.7	13.4	11.6	7.0
Uses at work	21.2	20.8	11.9	34.8	7.5
FAMILY INCOME	17.1	23.1	9.9	39.5	34.3
Less than \$10,000	3.3	13.9	23.1	9.9	4.1
\$10,000 to 14,999	15.3	22.4	9.7	36.9	28.3
\$15,000 to 19,999	14.5	20.3	8.5	38.8	16.0
\$20,000 to 24,999	18.7	23.5	10.1	36.6	16.6
\$25,000 to 34,999	15.3	23.8	8.4	40.1	11.7
\$35,000 to 49,999	13.9	18.9	7.4	35.4	9.7
\$50,000 to 74,999	13.8	21.0	8.4	35.9	9.5
\$75,000 and over	14.9	19.7	11.4	31.3	8.3
Income not reported	12.5	14.2	7.7	25.7	6.4
HOUSEHOLD SIZE	15.3	19.2	10.5	33.4	10.8
1-3 persons	6.0	19.2	10.5	33.4	10.8
4-5 persons	13.6	16.9	7.8	37.1	12.7
6-7 persons	14.5	23.0	6.3	40.0	16.2
8 persons or more	13.5	13.6	4.5	37.4	16.9
OCCUPATION	16.9	21.6	22.9	31.3	6.4
Managerial & professional	5.2	21.6	22.9	31.3	6.4
Tech,sales,admin	14.9	17.9	18.3	34.7	13.2
Service	10.4	11.9	7.2	42.9	23.5
Prec.prod,craft,repair	13.9	16.8	21.3	44.0	7.7
Operators, laborers, fab.	13.4	12.5	16.7	50.8	13.4
Farm, forest, fish	9.8	6.8	18.1	37.1	10.3
Never worked,NILF,AF	10.2	14.4	19.6	34.2	20.9
INDUSTRY	7.4	9.3	14.7	31.0	8.2
Agriculture	5.9	9.3	14.7	31.0	8.2
Mining	25.9	27.2	14.7	34.2	7.3
Construction	13.7	16.7	19.4	36.4	7.4
Manufacturing	17.8	18.0	10.8	41.7	6.2
Trans,comm,other public util	16.2	15.8	17.7	39.2	8.3
Wholesale/retail trade	13.5	16.0	9.0	38.6	16.3
Finance,insurance,realstate	13.8	18.3	16.5	33.0	7.3
Services	15.3	20.7	23.7	31.2	11.4
Forestry/fisheries	15.3	4.8	9.8	31.2	11.4
Public administration	17.0	3.1	21.7	37.2	6.7
Never worked,NILF,AF	10.2	19.8	19.6	34.2	20.9
Note: Persons of Hispanic origin may be of any race.					

Table 5D. Uses of Computers at Home by Adults: October 1997
 Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Word Processing				Book-keeping				E-Mail			
	Use	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
	computer at home	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number
TOTAL	56,416	39,748	70.5	16,668	29.5	24,601	43.6	31,815	56.4	25,077	44.5	31,339
AGE												
18-24 years	7,562	5,273	69.7	2,288	30.3	1,471	19.5	6,091	80.5	3,240	42.8	4,322
25-34 years	13,049	9,054	69.4	3,995	30.6	6,007	46.0	7,042	54.0	6,315	48.4	6,734
35-44 years	16,713	11,754	70.3	4,959	29.7	8,054	48.2	8,659	51.8	7,381	44.2	9,332
45-54 years	11,687	8,528	73.0	3,159	27.0	5,488	47.0	6,199	53.0	5,264	45.0	6,423
55+ years	7,406	5,139	69.4	2,267	30.6	3,582	48.4	3,825	51.6	2,878	38.9	4,528
RACE												
White Not Hispanic	48,075	33,906	70.5	14,169	29.5	21,290	44.3	26,785	55.7	21,821	45.4	26,254
Black Not Hispanic	3,197	2,248	70.3	949	29.7	1,382	43.2	1,815	56.8	1,148	35.9	2,049
Other Not Hispanic	2,575	1,844	71.6	731	28.4	950	36.9	1,625	63.1	1,171	45.5	1,404
Hispanic	2,569	1,750	68.1	820	31.9	978	38.1	1,591	61.9	937	36.5	1,632
SEX												
Male	28,598	18,963	66.3	9,635	33.7	13,242	46.3	15,356	53.7	13,755	48.1	14,843
Female	27,818	20,785	74.7	7,033	25.3	11,358	40.8	16,459	59.2	11,322	40.7	16,496
MARRITAL STATUS												
Married Spouse Present	37,699	26,279	69.7	11,420	30.3	18,155	48.2	19,545	51.8	16,568	43.9	21,131
Married Spouse Absent	367	257	70.1	110	29.9	166	45.2	201	54.8	155	42.2	212
Widowed	883	613	69.5	269	30.5	401	45.4	482	54.6	314	35.5	569
Divorced	4,123	2,965	71.9	1,158	28.1	1,864	45.2	2,259	54.8	1,785	43.3	2,338
Separated	809	579	71.5	230	28.5	338	41.8	471	58.2	342	42.3	467
Never Married	12,534	9,054	72.2	3,480	27.8	3,677	29.3	8,857	70.7	5,913	47.2	6,621
SES COMPUTER AT WORK												
Yes	32,124	24,140	75.1	7,984	24.9	15,963	49.7	16,161	50.3	15,838	49.3	16,287
No	13,181	7,995	60.7	5,186	39.3	4,597	34.9	8,584	65.1	4,705	35.7	8,476
Without work	11,111	7,613	68.5	3,497	31.5	4,040	36.4	7,071	63.6	4,534	40.8	6,577
HOUSEHOLD TYPE												
Married couple household	42,786	29,680	69.4	13,106	30.6	18,875	44.1	23,911	55.9	18,668	43.6	24,119
Male household	6,333	4,635	73.2	1,698	26.8	3,037	48.0	3,296	52.0	3,416	53.9	2,917
Female household	7,297	5,433	74.5	1,864	25.5	2,688	36.8	4,608	63.2	2,994	41.0	4,303
FAMILY TYPE												
Married Couple w/ Children <18	24,759	16,810	67.9	7,949	32.1	10,878	43.9	13,881	56.1	10,440	42.2	14,319
Male Household w/ Children <18	684	441	64.5	243	35.5	300	43.8	384	56.2	301	44.0	383
Female Household w/ Children <18	2,294	1,584	69.1	709	30.9	790	34.4	1,504	65.6	741	32.3	1,553
Family Households w/o Children	20,298	14,440	71.1	5,859	28.9	8,774	43.2	11,525	56.8	9,103	44.8	11,195
Non-family Households	8,381	6,473	77.2	1,908	22.8	3,859	46.0	4,522	54.0	4,492	53.6	3,889
REGION												
Northeast	10,440	7,069	67.7	3,371	32.3	4,174	40.0	6,267	60.0	4,562	43.7	5,878
Midwest	13,188	9,060	68.7	4,127	31.3	5,824	44.2	7,363	55.8	5,634	42.7	7,553
South	18,369	12,644	68.8	5,725	31.2	8,174	44.5	10,195	55.5	8,094	44.1	10,275
West	14,420	10,975	76.1	3,444	23.9	6,429	44.6	7,991	55.4	6,787	47.1	7,633
EDUCATIONAL ATTAINMENT												
Elementary: 0-8 years	305	119	39.1	186	60.9	102	33.6	203	66.4	50	16.5	255
Some H.S.: no diploma	1,560	713	45.7	847	54.3	390	25.0	1,171	75.0	470	30.1	1,090
U.S. Diploma/GED	11,829	6,554	55.4	5,274	44.6	4,629	39.1	7,200	60.9	3,849	32.5	7,979
Some College	19,090	13,697	71.8	5,393	28.2	7,867	41.2	11,223	58.8	8,236	43.1	10,855
Bachelor's degree or more	23,632	16,664	70.9	6,967	29.1	11,613	49.1	12,019	50.9	12,472	52.8	11,160
EMPLOYMENT												
Employed	45,305	32,135	70.9	13,171	29.1	20,560	45.4	24,745	54.6	20,543	45.3	24,763
Unemployed	1,241	862	69.5	379	30.5	441	35.6	799	64.4	531	42.8	710
Not in Labor force	9,870	6,751	68.4	3,119	31.6	3,599	36.5	6,271	63.5	4,003	40.6	5,867
ENROLLMENT												
Not enrolled	47,816	32,838	68.7	14,978	31.3	22,409	46.9	25,407	53.1	20,855	43.6	26,961
Below college	491	282	57.4	210	42.6	42	8.5	450	91.5	145	29.4	347

Table 5D. Continued
(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Word Processing			Book-keeping			E-Mail		
	Use computer at home	Yes	No	Yes	No	Yes	Yes	No	No
	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number
ENROLLMENT									
College	8,109	6,628	81.7	1,480	18.3	2,150	26.5	5,959	73.5
FAMILY INCOME									
Under \$5,000	965	701	72.6	264	27.4	338	35.0	627	65.0
5,000-9,999	995	713	71.6	282	28.4	303	30.5	692	69.5
10,000-14,999	1,288	859	66.6	430	33.4	407	31.6	881	68.4
15,000-19,999	1,355	946	69.9	408	30.1	525	38.7	830	61.3
20,000-24,999	2,223	1,499	67.4	725	32.6	854	38.4	1,369	61.6
25,000-34,999	5,672	3,764	66.4	1,908	33.6	2,409	42.5	3,263	57.5
35,000-49,999	9,414	6,228	66.2	3,186	33.8	4,190	44.5	5,224	55.5
50,000-74,999	13,924	9,919	71.2	4,006	28.8	6,117	43.9	7,808	56.1
75,000+	16,070	12,182	75.8	3,888	24.2	7,609	47.3	8,461	52.7
Not reported	4,510	2,939	65.2	1,571	34.8	1,850	41.0	2,660	59.0
HOUSEHOLD SIZE									
1 person	4,721	3,696	78.3	1,025	21.7	2,380	50.4	2,341	49.6
2-3 people	28,540	20,428	71.6	8,112	28.4	12,893	45.2	15,647	54.8
4-5 people	20,486	13,936	68.0	6,551	32.0	8,362	40.8	12,124	59.2
6-7 people	2,286	1,444	63.2	842	36.8	804	35.2	1,482	64.8
8 or more people	383	245	63.9	138	36.1	161	42.1	222	57.9
OCCUPATION									
Neverwork/NILF	9,367	6,373	68.0	2,993	32.0	3,423	36.5	5,943	63.5
Manag. & professional	21,373	16,685	78.1	4,689	21.9	10,550	49.4	10,824	50.6
Tech., sales, admin.	14,902	10,696	71.8	4,206	28.2	6,575	44.1	8,327	55.9
Services	3,451	2,172	63.0	1,278	37.0	1,081	31.3	2,370	68.7
prec. prod., craft, repair	3,581	1,897	53.0	1,684	47.0	1,506	42.1	2,075	57.9
Operators, laborers, fab.	3,046	1,573	51.6	1,473	48.4	1,128	37.0	1,918	63.0
Farm, forest, fish	696	352	50.5	344	49.5	338	48.5	358	51.5
INDUSTRY									
Neverwork/NILF	9,367	6,373	68.0	2,993	32.0	3,423	36.5	5,943	63.5
Agriculture/forestry/fisheries	841	465	55.3	376	44.7	445	52.9	396	47.1
Mining	183	105	57.3	78	42.7	103	56.3	80	43.7
Construction	2,201	1,268	57.6	933	42.4	1,068	48.5	1,133	51.5
Manufacturing	6,771	4,418	65.2	2,353	34.8	3,253	48.0	3,519	52.0
Trans., comm., utilities	3,115	1,993	64.0	1,121	36.0	1,537	49.3	1,578	50.7
Wholesale/retail trade	7,660	5,133	67.0	2,527	33.0	2,999	39.1	4,662	60.9
Finance/insurance/real estate	3,826	2,783	72.7	1,043	27.3	1,896	49.6	1,930	50.4
Services	20,079	15,472	77.1	4,607	22.9	8,840	44.0	11,239	56.0
Public administration	2,374	1,738	73.2	636	26.8	1,038	43.7	1,336	56.3

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Table 5D. Continued

Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Desk-top Publishing				Games				Graphics/Design				Data
	Yes		No		Yes		No		Yes		No		bases
	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number
TOTAL	9,881	17.5	46,535	82.5	30,259	53.6	26,157	46.4	14,564	25.8	41,853	74.2	14,723
AGE													
18-24 years	857	11.3	6,705	88.7	4,643	61.4	2,919	38.6	1,699	22.5	5,863	77.5	1,293
25-34 years	2,394	18.3	10,655	81.7	7,715	59.1	5,334	40.9	3,407	26.1	9,642	73.9	3,406
35-44 years	3,345	20.0	13,367	80.0	9,161	54.8	7,552	45.2	4,684	28.0	12,028	72.0	4,677
45-54 years	2,175	18.6	9,512	81.4	5,380	46.0	6,307	54.0	3,135	26.8	8,552	73.2	3,407
55+ years	1,109	15.0	6,297	85.0	3,360	45.4	4,046	54.6	1,639	22.1	5,767	77.9	1,941
RACE													
White Not Hispanic	8,583	17.9	39,492	82.1	26,061	54.2	22,014	45.8	12,493	26.0	35,581	74.0	12,756
Black Not Hispanic	519	16.2	2,678	83.8	1,677	52.5	1,520	47.5	816	25.5	2,381	74.5	740
Other Not Hispanic	375	14.6	2,200	85.4	1,203	46.7	1,371	53.3	640	24.8	1,935	75.2	665
Hispanic	405	15.7	2,165	84.3	1,318	51.3	1,252	48.7	614	23.9	1,955	76.1	562
SEX													
Male	4,885	17.1	23,714	82.9	16,462	57.6	12,137	42.4	7,734	27.0	20,864	73.0	8,411
Female	4,996	18.0	22,822	82.0	13,798	49.6	14,020	50.4	6,829	24.6	20,988	75.4	6,312
MARITAL STATUS													
Married Spouse Present	6,957	18.5	30,742	81.5	19,663	52.2	18,036	47.8	9,777	25.9	27,922	74.1	10,161
Married Spouse Absent	66	18.0	301	82.0	205	55.9	162	44.1	102	27.8	265	72.2	112
Widowed	133	15.0	750	85.0	459	52.0	424	48.0	209	23.7	674	76.3	200
Divorced	713	17.3	3,411	82.7	2,242	54.4	1,881	45.6	1,145	27.8	2,978	72.2	1,176
Separated	127	15.7	682	84.3	475	58.7	334	41.3	232	28.6	578	71.4	184
Never Married	1,884	15.0	10,650	85.0	7,214	57.6	5,320	42.4	3,098	24.7	9,436	75.3	2,889
USES COMPUTER AT WORK													
Yes	6,604	20.6	25,520	79.4	16,845	52.4	15,279	47.6	9,417	29.3	22,707	70.7	10,250
No	1,731	13.1	11,450	86.9	7,536	57.2	5,645	42.8	2,755	20.9	10,427	79.1	2,296
Without work	1,546	13.9	9,565	86.1	5,878	52.9	5,233	47.1	2,392	21.5	8,719	78.5	2,177
HOUSEHOLD TYPE													
Married couple household	7,560	17.7	35,226	82.3	22,710	53.1	20,076	46.9	10,877	25.4	31,909	74.6	11,044
Male household	1,180	18.6	5,153	81.4	3,458	54.6	2,875	45.4	1,751	27.6	4,582	72.4	1,961
Female household	1,141	15.6	6,156	84.4	4,091	56.1	3,206	43.9	1,936	26.5	5,361	73.5	1,719
FAMILY TYPE													
Married Couple w/ Children <18	4,600	18.6	20,159	81.4	13,790	55.7	10,969	44.3	6,403	25.9	18,356	74.1	6,163
Male Household w/ Children <18	127	18.6	557	81.4	398	58.2	286	41.8	172	25.1	512	74.9	189
Female Household w/ Children <18	321	14.0	1,973	86.0	1,477	64.4	816	35.6	608	26.5	1,685	73.5	470
Family Households w/o Children	3,221	15.9	17,077	84.1	10,214	50.3	10,084	49.7	5,000	24.6	15,299	75.4	5,373
Non-family Households	1,611	19.2	6,770	80.8	4,379	52.3	4,001	47.7	2,381	28.4	6,000	71.6	2,529
REGION													
Northeast	1,611	15.4	8,829	84.6	5,164	49.5	5,276	50.5	2,270	21.7	8,171	78.3	2,557
Midwest	2,307	17.5	10,881	82.5	7,332	55.6	5,856	44.4	3,395	25.7	9,793	74.3	3,383
South	3,059	16.7	15,309	83.3	10,231	55.7	8,137	44.3	4,627	25.2	13,742	74.8	4,717
West	2,904	20.1	11,516	79.9	7,532	52.2	6,887	47.8	4,272	29.6	10,147	70.4	4,066
EDUCATIONAL ATTAINMENT													
Elementary: 0-8 years	16	5.3	269	94.7	195	63.9	110	36.1	40	13.1	265	86.9	35
Some H.S.: no diploma	127	8.1	1,433	91.9	1,076	68.9	485	31.1	302	19.4	1,258	80.6	196
H.S. Diploma/GED	1,475	12.5	10,354	87.5	7,168	60.6	4,661	39.4	2,573	21.7	9,256	78.3	2,033
Some College	3,168	16.6	15,922	83.4	10,850	56.8	8,240	43.2	5,164	27.1	13,926	72.9	4,813
Bachelors degree or more	5,095	21.6	18,537	78.4	10,970	46.4	12,662	53.6	6,484	27.4	17,148	72.6	7,647
EMPLOYMENT													
Employed	8,335	18.4	36,970	81.6	24,382	53.8	20,924	46.2	12,172	26.9	33,134	73.1	12,547
Unemployed	218	17.6	1,023	82.4	715	57.6	526	42.4	324	26.1	917	73.9	300
Not in Labor force	1,328	13.5	8,542	86.5	5,163	52.3	4,707	47.7	2,068	21.0	7,802	79.0	1,877
ENROLLMENT													
Not enrolled	8,453	17.7	39,363	82.3	25,729	53.8	22,087	46.2	12,252	25.6	35,564	74.4	12,623

Table 5D. Continued

(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Desk-top Publishing				Games				Graphics/Design				Data-bases	
	Yes		No		Yes		No		Yes		No			
	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number	Pct	Number	Pct		
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Table 5D. Continued
Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Data-bases		Spread-sheets		Inter-net		Log-in to School						
	Yes	No	Yes	No	Yes	No	Yes						
Pct	Number	Pct	Number	Pct	Number	Pct	Number	Pct					
TOTAL	26.1	41,693	73.9	16,172	28.7	40,245	71.3	24,956	44.2	31,460	55.8	8,198	14.5
AGE													
18-24 years	17.1	6,269	82.9	1,411	18.7	6,150	81.3	3,349	44.3	4,213	55.7	1,138	15.1
25-34 years	26.1	9,643	73.9	3,971	30.4	9,078	69.6	6,324	48.5	6,725	51.5	2,230	17.1
35-44 years	28.0	12,036	72.0	5,195	31.1	11,518	68.9	7,350	44.0	9,363	56.0	2,484	14.9
45-54 years	29.2	8,280	70.8	3,649	31.2	8,037	68.8	5,251	44.9	6,436	55.1	1,738	14.9
55+ years	26.2	5,465	73.8	1,946	26.3	5,460	73.7	2,682	36.2	4,724	63.8	608	8.2
RACE													
White Not Hispanic	26.5	35,319	73.5	13,997	29.1	34,078	70.9	21,636	45.0	26,439	55.0	7,071	14.7
Black Not Hispanic	23.2	2,457	76.8	871	27.3	2,326	72.7	1,151	36.0	2,047	64.0	415	13.0
Other Not Hispanic	25.8	1,909	74.2	728	28.3	1,847	71.7	1,151	44.7	1,423	55.3	440	17.1
Hispanic	21.9	2,008	78.1	575	22.4	1,994	77.6	1,018	39.6	1,551	60.4	272	10.6
GENDER													
Male	29.4	20,187	70.6	9,288	32.5	19,311	67.5	14,136	49.4	14,462	50.6	5,091	17.8
Female	22.7	21,506	77.3	6,884	24.7	20,934	75.3	10,820	38.9	16,998	61.1	3,107	11.2
MARITAL STATUS													
Married Spouse Present	27.0	27,538	73.0	11,253	29.8	26,446	70.2	16,454	43.6	21,245	56.4	5,262	14.0
Married Spouse Absent	30.5	255	69.5	115	31.3	252	68.7	143	38.9	224	61.1	51	13.8
Widowed	22.7	682	77.3	205	23.2	678	76.8	288	32.7	595	67.3	73	8.3
Divorced	28.5	2,947	71.5	1,316	31.9	2,807	68.1	1,798	43.6	2,325	56.4	595	14.4
Separated	22.8	625	77.2	190	23.5	619	76.5	329	40.7	480	59.3	128	15.8
Never Married	23.0	9,646	77.0	3,092	24.7	9,442	75.3	5,943	47.4	6,591	52.6	2,090	16.7
USES COMPUTER AT WORK													
Yes	31.9	21,874	68.1	11,570	36.0	20,554	64.0	15,628	48.6	16,496	51.4	6,494	20.2
No	17.4	10,885	82.6	2,348	17.8	10,834	82.2	4,979	37.8	8,202	62.2	796	6.0
Without work	19.6	8,934	80.4	2,254	20.3	8,657	79.7	4,349	39.1	6,762	60.9	908	8.2
HOUSEHOLD TYPE													
Married couple household	25.8	31,742	74.2	12,056	28.2	30,730	71.8	18,590	43.4	24,196	56.6	5,946	13.9
Male household	31.0	4,372	69.0	2,204	34.8	4,129	65.2	3,406	53.8	2,927	46.2	1,255	19.8
Female household	23.6	5,578	76.4	1,911	26.2	5,386	73.8	2,960	40.6	4,337	59.4	998	13.7
FAMILY TYPE													
Married Couple w/ Children <18	24.9	18,597	75.1	6,673	27.0	18,086	73.0	10,502	42.4	14,257	57.6	3,508	14.2
Male Household w/ Children <18	27.6	495	72.4	191	28.0	493	72.0	309	45.2	375	54.8	117	17.1
Female Household w/ Children <18	20.5	1,824	79.5	521	22.7	1,773	77.3	766	33.4	1,528	66.6	243	10.6
Family Households w/o Children	26.5	14,926	73.5	5,925	29.2	14,374	70.8	9,017	44.4	11,282	55.6	2,745	13.5
Non-family Households	30.2	5,852	69.8	2,862	34.1	5,519	65.9	4,362	52.1	4,018	47.9	1,585	18.9
REGION													
Northeast	24.5	7,883	75.5	2,597	24.9	7,844	75.1	4,645	44.5	5,795	55.5	1,488	14.3
Midwest	25.7	9,804	74.3	3,822	29.0	9,366	71.0	5,608	42.5	7,580	57.5	1,949	14.8
South	25.7	13,651	74.3	5,222	28.4	13,147	71.6	8,254	44.9	10,114	55.1	2,558	13.9
West	28.2	10,354	71.8	4,532	31.4	9,888	68.6	6,449	44.7	7,971	55.3	2,203	15.3
EDUCATIONAL ATTAINMENT													
Elementary: 0-8 years	11.4	271	88.6	33	10.7	273	89.3	56	18.3	249	81.7	16	5.2
Some H.S.: no diploma	12.6	1,365	87.4	177	11.3	1,383	88.7	534	34.2	1,026	65.8	78	5.0
H.S. Diploma/GED	17.2	9,796	82.8	2,262	19.1	9,567	80.9	3,986	33.7	7,843	66.3	747	6.3
Some College	25.2	14,277	74.8	5,147	27.0	13,943	73.0	8,313	43.5	10,777	56.5	2,538	13.3
Bachelors degree or more	32.4	15,985	67.6	8,553	36.2	15,079	63.8	12,066	51.1	11,565	48.9	4,820	20.4
EMPLOYMENT													
Employed	27.7	32,759	72.3	13,918	30.7	31,388	69.3	20,607	45.5	24,698	54.5	7,290	16.1
Unemployed	24.2	941	75.8	339	27.4	901	72.6	563	45.4	678	54.6	95	7.6
Not in Labor force	19.0	7,993	81.0	1,914	19.4	7,955	80.6	3,786	38.4	6,084	61.6	813	8.2
ENROLLMENT													
Not enrolled	26.4	35,193	73.6	13,885	29.0	33,931	71.0	20,810	43.5	27,006	56.5	6,300	13.2

Table 5D. Continued

(Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Data-bases		Spread-sheets		Inter-net		Log-in to					
	Yes	No	Yes	No	Yes	No	School					
ENROLLMENT												
Below college	7.9	453	41	8.3	451	91.7	178	36.1	314	63.9	22	4.4
College	25.4	6,047	2,246	74.6	5,863	72.3	3,968	48.9	4,141	51.1	1,876	23.1
FAMILY INCOME												
Under \$5,000	28.2	693	282	71.8	683	70.8	447	46.3	518	53.7	161	16.6
5,000-9,999	18.3	812	206	81.7	789	79.3	389	39.1	606	60.9	141	14.2
10,000-14,999	18.5	1,049	286	81.5	1,002	77.8	459	35.6	829	64.4	169	13.1
15,000-19,999	19.2	1,095	288	80.8	1,067	78.7	542	40.0	813	60.0	120	8.9
20,000-24,999	21.4	1,749	461	78.6	1,762	79.3	819	36.8	1,404	63.2	225	10.1
25,000-34,999	22.1	4,418	1,299	77.9	4,373	77.1	2,228	39.3	3,443	60.7	532	9.4
35,000-49,999	25.0	7,058	2,514	75.0	6,900	73.3	3,782	40.2	5,632	59.8	1,027	10.9
50,000-74,999	26.7	10,211	4,141	73.3	9,783	70.3	6,281	45.1	7,643	54.9	2,037	14.6
75,000+	31.1	11,079	5,582	68.9	10,488	65.3	8,403	52.3	7,668	47.7	3,328	20.7
Not reported	21.8	3,529	1,113	78.2	3,397	75.3	1,606	35.6	2,904	64.4	459	10.2
HOUSEHOLD SIZE												
1 person	33.3	3,147	1,769	66.7	2,952	62.5	2,348	49.7	2,373	50.3	858	18.2
2-3 people	26.8	20,887	8,533	73.2	20,007	70.1	13,049	45.7	15,490	54.3	4,168	14.6
4-5 people	24.0	15,579	5,295	76.0	15,192	74.2	8,623	42.1	11,864	57.9	2,905	14.2
6-7 people	21.8	1,788	496	78.2	1,790	78.3	824	36.0	1,462	64.0	233	10.2
8 or more people	24.0	291	79	76.0	304	79.3	112	29.2	271	70.8	34	8.9
OCCUPATION												
Neverwork/NILF	18.7	7,616	1,789	81.3	7,577	80.9	3,568	38.1	5,799	61.9	730	7.8
Manag. & professional	33.3	14,260	8,051	66.7	13,323	62.3	10,748	50.3	10,625	49.7	4,540	21.2
Tech., sales, admin.	26.6	10,944	4,307	73.4	10,595	71.1	6,604	44.3	8,298	55.7	2,171	14.6
Services	15.5	2,917	528	84.5	2,923	84.7	1,282	37.2	2,169	62.8	287	8.3
prec. prod., craft, repair	19.6	2,879	784	80.4	2,796	78.1	1,500	41.9	2,081	58.1	277	7.7
Operators, laborers, fab.	17.2	2,522	535	82.8	2,511	82.4	1,053	34.6	1,993	65.4	164	5.4
Farm, forest, fish	20.2	556	177	79.8	519	74.5	201	28.9	495	71.1	30	4.3
INDUSTRY												
Neverwork/NILF	18.7	7,616	1,789	81.3	7,577	80.9	3,568	38.1	5,799	61.9	730	7.8
Agriculture/forestry/fisheries	22.7	650	234	77.3	607	72.1	279	33.2	562	66.8	67	8.0
Mining	22.3	142	59	77.7	123	67.5	76	41.8	106	58.2	28	15.2
Construction	24.4	1,664	613	75.6	1,588	72.1	891	40.5	1,310	59.5	152	6.9
Manufacturing	27.7	4,899	2,317	72.3	4,454	65.8	3,010	44.5	3,761	55.5	1,168	17.3
Trans., comm., utilities	27.8	2,250	954	72.2	2,161	69.4	1,473	47.3	1,642	52.7	558	17.9
Wholesale/retail trade	22.7	5,925	1,951	77.3	5,709	74.5	3,373	44.0	4,287	56.0	960	12.5
Finance/insurance/real estate	32.1	2,599	1,413	67.9	2,412	63.1	1,808	47.3	2,018	52.7	716	18.7
Services	29.1	14,231	6,216	70.9	13,863	69.0	9,436	47.0	10,643	53.0	3,456	17.2
Public administration	27.7	1,717	624	72.3	1,750	73.7	1,041	43.8	1,333	56.2	365	15.4

(CONTINUED)

Table 5D. Continued

Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Log-in to		Work at Home		School Uses		Learning to Use	
	School		Yes	No	Yes	No	Yes	Computer
	Number	Pct	Number	Pct	Number	Pct	Number	Pct
TOTAL	48,218	85.5	19,357	34.3	37,059	65.7	10,393	18.4
AGE								
18-24 years	6,424	84.9	1,058	14.0	6,503	86.0	4,313	57.0
25-34 years	10,819	82.9	4,820	36.9	8,229	63.1	2,364	18.1
35-44 years	14,228	85.1	6,515	39.0	10,198	61.0	2,148	12.9
45-54 years	9,949	85.1	4,803	41.1	6,884	58.9	1,198	10.3
55+ years	6,798	91.8	2,160	29.2	5,246	70.8	371	5.0
RACE								
White Not Hispanic	41,004	85.3	16,652	34.6	31,423	65.4	8,410	17.5
Black Not Hispanic	2,782	87.0	1,066	33.3	2,132	66.7	696	21.8
Other Not Hispanic	2,134	82.9	847	32.9	1,728	67.1	670	26.0
Hispanic	2,297	89.4	792	30.8	1,777	69.2	618	24.1
GENDER								
Male	23,507	82.2	10,858	38.0	17,740	62.0	4,747	16.6
Female	24,711	88.8	8,499	30.6	19,319	69.4	5,647	20.3
MARITAL STATUS								
Married Spouse Present	32,437	86.0	13,892	36.8	23,807	63.2	4,312	11.4
Married Spouse Absent	317	86.2	132	35.9	236	64.1	48	12.9
Widowed	810	91.7	202	22.9	681	77.1	63	7.2
Divorced	3,528	85.6	1,636	39.7	2,487	60.3	635	15.4
Separated	681	84.2	277	34.3	532	65.7	181	22.4
Never Married	10,444	83.3	3,218	25.7	9,316	74.3	5,154	41.1
USES COMPUTER AT WORK								
Yes	25,630	79.8	14,739	45.9	17,385	54.1	4,983	15.5
No	12,385	94.0	3,245	24.6	9,936	75.4	2,550	19.3
Without work	10,203	91.8	1,372	12.4	9,738	87.6	2,861	25.7
HOUSEHOLD TYPE								
Married couple household	36,841	86.1	14,622	34.2	28,164	65.8	7,186	16.8
Male household	5,078	80.2	2,439	38.5	3,894	61.5	1,257	19.9
Female household	6,299	86.3	2,295	31.5	5,001	63.5	1,950	26.7
FAMILY TYPE								
Married Couple w/ Children <18	21,251	85.8	8,593	34.7	16,166	65.3	4,227	17.1
Male Household w/ Children <18	567	82.9	257	37.6	427	62.4	123	18.0
Female Household w/ Children <18	2,051	89.4	633	27.6	1,661	72.4	637	27.8
Family Households w/o Children	17,553	86.5	6,598	32.5	13,701	67.5	3,546	17.5
Non-family Households	6,796	81.1	3,276	39.1	5,105	60.9	1,859	22.2
REGION								
Northeast	8,952	85.7	3,466	33.2	6,974	66.8	1,798	17.2
Midwest	11,238	85.2	4,452	33.8	8,736	66.2	2,429	18.4
South	15,810	86.1	6,255	34.0	12,114	66.0	3,319	18.1
West	12,217	84.7	5,184	36.0	9,235	64.0	2,848	19.7
EDUCATIONAL ATTAINMENT								
Elementary: 0-8 years	289	94.8	48	15.6	258	84.4	18	5.8
Some H.S.: no diploma	1,483	95.0	211	13.5	1,349	86.5	400	25.6
H.S. Diploma/GED	11,082	93.7	2,527	21.4	9,302	78.6	1,316	11.1
Some College	16,552	86.7	5,460	28.6	13,630	71.4	5,083	26.6
Bachelors degree or more	18,812	79.6	11,111	47.0	12,521	53.0	3,578	15.1
EMPLOYMENT								
Employed	38,015	83.9	17,985	39.7	27,321	60.3	7,533	16.6
Unemployed	1,146	92.4	209	16.9	1,032	83.1	339	27.3
Not in Labor force	9,057	91.8	1,163	11.8	8,707	88.2	2,522	25.5
ENROLLMENT								
Not enrolled	41,515	86.8	17,345	36.3	30,471	63.7	3,559	7.4

Table 5D. Continued
Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Log-in to School		Work at Home		School Uses		Learning to Use Computer	
	No	Yes	No	Yes	No	Yes	No	Yes
	Number	Pct	Number	Pct	Number	Pct	Number	Pct
ENROLLMENT								
Below college	470	95.6	48	9.9	443	90.1	358	72.9
College	6,233	76.9	1,964	24.2	6,145	75.8	6,476	79.9
FAMILY INCOME								
Under \$5,000	804	83.4	225	23.3	740	76.7	373	38.6
5,000-9,999	854	85.8	184	18.5	810	81.5	391	39.3
10,000-14,999	1,119	86.9	296	22.9	993	77.1	357	27.7
15,000-19,999	1,235	91.1	271	20.0	1,084	80.0	343	25.3
20,000-24,999	1,998	89.9	573	25.8	1,650	74.2	471	21.2
25,000-34,999	5,140	90.6	1,535	27.1	4,137	72.9	1,132	20.0
35,000-49,999	8,387	89.1	2,863	30.4	6,551	69.6	1,578	16.8
50,000-74,999	11,888	85.4	4,948	35.5	8,976	64.5	2,416	17.4
75,000+	12,742	79.3	7,196	44.8	8,874	55.2	2,596	16.2
Not reported	4,051	89.8	1,266	28.1	3,244	71.9	735	16.3
HOUSEHOLD SIZE								
1 person	3,863	81.8	1,977	41.9	2,744	58.1	874	18.5
2-3 people	24,372	85.4	10,010	35.1	16,530	64.9	4,813	16.9
4-5 people	17,581	85.8	6,603	32.2	13,884	67.8	4,113	20.1
6-7 people	2,053	89.8	672	29.4	1,615	70.6	501	21.9
8 or more people	349	91.1	96	25.1	287	74.9	92	24.2
OCCUPATION								
Neverwork/NILF	8,637	92.2	1,080	11.5	8,287	88.5	2,280	24.3
Manag. & professional	16,833	78.8	11,093	51.9	10,281	48.1	3,389	15.9
Tech., sales, admin.	12,732	85.4	4,947	33.2	9,955	66.8	2,735	18.4
Services	3,164	91.7	669	19.4	2,782	80.6	1,009	29.2
prec. prod., craft, repair	3,304	92.3	891	24.9	2,689	75.1	380	10.6
Operators, laborers, fab.	2,882	94.6	449	14.8	2,597	85.2	486	16.0
Farm, forest, fish	666	95.7	228	32.8	468	67.2	115	16.5
INDUSTRY								
Neverwork/NILF	8,637	92.2	1,080	11.5	8,287	88.5	2,280	24.3
Agriculture/forestry/fisheries	774	92.0	319	37.9	522	62.1	92	11.0
Mining	155	84.8	76	41.3	107	58.7	17	9.2
Construction	2,049	93.1	761	34.6	1,441	65.4	209	9.5
Manufacturing	5,603	82.7	2,470	36.5	4,302	63.5	727	10.7
Trans., comm., utilities	2,557	82.1	1,137	36.5	1,977	63.5	371	11.9
Wholesale/retail trade	6,701	87.5	2,216	28.9	5,444	71.1	1,820	23.8
Finance/insurance/real estate	3,110	81.3	1,678	43.9	2,148	56.1	543	14.2
Services	16,623	82.8	8,777	43.7	11,302	56.3	4,051	20.2
Public administration	2,009	84.6	844	35.6	1,530	64.4	283	11.9

CONTINUED)

Table 5D. Continued

Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Lear-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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Table 5D. Continued
 Numbers in thousands. Civilian noninstitutional population.)

Characteristic	Learn- ing to Use Com- puter	Other Reasons	No	Yes	No
	Pct	Number	Pct	Number	Pct
EMPLOYMENT					
Unemployed	76.1	78	6.3	1,163	93.7
Not in Labor force	81.6	495	5.0	9,375	95.0
ENROLLMENT					
Not enrolled	82.7	2,030	4.2	45,786	95.8
Below college	82.0	2	0.4	490	99.6
College	79.9	179	2.2	7,930	97.8
FAMILY INCOME					
Under \$5,000	85.8	40	4.1	925	95.9
5,000-9,999	73.3	44	4.4	951	95.6
10,000-14,999	77.3	84	6.5	1,205	93.5
15,000-19,999	78.0	74	5.5	1,281	94.5
20,000-24,999	78.3	82	3.7	2,141	96.3
25,000-34,999	79.3	223	3.9	5,448	96.1
35,000-49,999	80.2	455	4.8	8,959	95.2
50,000-74,999	82.7	478	3.4	13,447	96.6
75,000+	84.7	552	3.4	15,518	96.6
Not reported	86.5	180	4.0	4,330	96.0
HOUSEHOLD SIZE					
1 person	81.6	226	4.8	4,495	95.2
2-3 people	82.3	1,192	4.2	27,347	95.8
4-5 people	82.5	691	3.4	19,795	96.6
5-7 people	82.0	80	3.5	2,206	96.5
3 or more people	84.6	21	5.6	362	94.4
OCCUPATION					
Neverwork/NILF	81.9	473	5.1	8,894	94.9
Manag. & professional	83.9	748	3.5	20,625	96.5
Tech., sales, admin.	81.8	550	3.7	14,353	96.3
Services	79.9	162	4.7	3,289	95.3
prec. prod., craft, repair	79.4	144	4.0	3,437	96.0
Operators, laborers, fab.	81.0	102	3.4	2,944	96.6
Farm, forest, fish	80.0	32	4.6	664	95.4
INDUSTRY					
Neverwork/NILF	81.9	473	5.1	8,894	94.9
Agriculture/forestry/fisheries	80.8	32	3.8	809	96.2
Mining	85.0	12	6.6	171	93.4
Construction	79.6	72	3.3	2,129	96.7
Manufacturing	82.5	231	3.4	6,540	96.6
Trans., comm., utilities	83.2	125	4.0	2,990	96.0
Wholesale/retail trade	81.4	219	2.9	7,441	97.1
Finance/insurance/real estate	85.0	173	4.5	3,653	95.5
Services	82.3	776	3.9	19,303	96.1
Public administration	84.0	98	4.1	2,275	95.9

Introduction

The author's paper examines the change in computer access throughout the United States in three areas — home, work, and school — over a 13-year period, from 1984 to 1997. The data source is a nationwide telephone household survey and related supplements known as the Current Population Survey (CPS) supplements conducted by the Census Bureau. The survey does not reflect responses of the estimated 6% of U.S. households without telephone service.

Research Findings

The research finding from this paper address three primary areas: growth in home computers and differentials among user groups; the evolution of home computer use; and trends in using home computers for work. Key findings from each of these areas are summarized below.

Growth in Home Computers and Differentials

Based on data from the CPS, the proportion of U.S. households with a computer rose from 8% in 1984 to 37% in 1997. By 1997, 40% of adults and 50% of children had access to a home computer. The two primary factors attributed to the surge in home computer access are the dramatic reductions in equipment costs and the dramatic increases in usability and applications.

Although the availability of computers in the home has grown significantly, the distribution of home computers is not even across all segments of the population, with family income or economic resources of the household being the single most important determining factor. In 1997, 10% of households with income of \$15,000 or less had a computer while 75% of households with income of \$75,000 or more had a home computer. Computers were also more likely to be found in homes where the residents had higher levels of education and where occupants were employed.

Lower levels of computer use were identified in Black and Hispanic households and some geographic differences were noted as well with 43% of households in the West having a computer while only 33% of households in the South did.

Home Computer Use

The survey data show a 15-fold increase in computer use over a 13-year period, rising from 500,000 in 1984 to 7.5 million in 1997. Earlier gender bias all but disappeared over the same time frame. By 1997,

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72% of men and 70% of women reported using their home computer compared to 63% of men and 43% of women who reported doing so in 1984. The data also show that once cost of ownership is overcome, usage is fairly consistent.

Using Home Computers for Work

In 1984, 2.9 million people reported using their home computer for job-related work. This estimate had grown to between 20 and 25 million by 1997; however, the type of work-at-home use is not clearly identified or defined. In some instance, respondents may be teleworking (i.e., using information technology and telecommunications to replace work-related travel to a traditional work site). In other instance, respondents may be using their home computers to complete work after hours, or on weekends or holidays. Yet in other instances the respondents may be home-based business owners. Regardless of the nature of the work being completed on home computers, the growth rate has been significant.

Education level was identified as the single most important indicator of work-related use of home computers. In 1997, 47% of people with a bachelor's degree reported using their home computer for work compared to just 15% with less than a high school degree.

How Do These Findings Compare to the Latest Trends and Statistics?

Another important variable, which is fueling the growth of working at home, is the Internet. The latest National Telecommunications and Information Administration's report, *Failing Through the Net: Defining the Digital Divide*, shows significant gaps in access to computers and the Internet based on race, location, education, and income and that in some cases, these variations are expanding. Following are key findings from this report which is based on December 1998 U.S. Department of Commerce Census Bureau information.

- U.S. households in urban areas with incomes of \$75,000 or more are 20 times more likely to have Internet access and 9 times more likely to have a computer than those at the lowest income levels in rural areas.
- Gaps for home Internet access between White and Hispanic households and White and Black households have grown 5% since 1997.
- Gaps based on income and education levels have grown 25-29% in the past year.

Although this report shows significant and expanding gaps in some cases, the findings also show that as computer prices continue to decrease, more people are able to afford them at home.

The International Telework Association and Council (ITAC), a non-profit organization dedicated to promoting the economic, social and environmental benefits of telework, has been tracking the number of U.S. teleworkers since the early 1990s. ITAC's findings show the number of teleworkers has grown from 8.7 million in 1996 to nearly 23 million in 2000. ITAC projects that nearly 30 million U.S. workers will be teleworking by 2004.¹

With nationwide unemployment in the U.S. at a 30-year record low, employers are seeking new ways to attract and retain skilled workers. Teleworking enables employers to significantly expand their geographic reach, either nationally or globally, to gain access to the skilled workers they need. Between 1996 and 1998, the Metropolitan Washington Council of Governments conducted a 21-month Telework Demonstration project with eight Washington-area employers to help them start or expand telework programs. During the course of the project, four of the eight employers retained employees who moved out of the Washington region or hired new employees who lived in distant parts of the country.

Rapid growth in the information technology field has created a glut of unfilled jobs. The Information Technology Association of America (ITAA) projects that nearly half of the 1.6 million new information technology jobs created in 2000 will go unfilled. This represents a shortfall of nearly 850,000 skilled information technology workers in 2000. Teleworking could provide the means to filling some of these positions.

Conclusions

The author's paper shows that there are serious socio-demographic differentials in the distribution of home computers which are likely to continue for the foreseeable future. These findings are supported by other recent research. The predominant factor limiting home computer ownership is household income. However, the use of home computers is on the upswing for nearly all sections of the population and as home computers become more commonplace, people of all ages and groups are finding ways to use them.

Increasingly large numbers of people are using their home computers to do some of their work. This trend is also expected to continue with an estimated 30 million U.S. workers regularly teleworking by the end of 2004. The largest variances in the use of home computers for work are based on education and occupation; whereas, variances based on race and gender are minor.

A strong economy with low unemployment and continued rapid, growth in the information technology field is creating a demand for skilled labor which may not be met by existing venues. This demand provides new employment opportunities for populations being left behind in the digital divide, namely those in inner cities, rural areas, and Indian reservations. With additional resources, these individuals could be provided with the training and access to technology necessary to perform work for employers in other areas through teleworking.

Policy Implications

What is Currently Being Done to Bridge the Gap?

Public and private-sector grant programs provide funding for numerous technology-based programs, especially for under served populations. For example, the U.S. Department of Commerce's Technology Opportunities Program (TOP) has provided \$150 million in funding for 456 projects and leveraged an

additional \$221 million in matching funds. Private-sector organizations like the Gates Foundations provide funding for technology-based initiatives including a new program that focuses solely on Indian reservations. Additional technology-related programs are available through other federal agencies like the U.S. Department of Education's Community Technology Centers Program to increase use of technology in urban and rural areas and economically distressed communities.

While these programs serve a worthy purpose by providing under served populations with increased access to technology, they fall short in actually providing access to new employment opportunities. In April 2000, Senator Paul Wellstone introduced legislation that would fund and establish National Centers for Distance Working which would provide assistance to individuals in rural communities and on Indian reservations with access to employment in distant areas through teleworking.²

What Else Needs to be Done to Close the Telework Gap?

The following measures are provided as suggestions for increasing access to employment for under served populations in the U.S. through the use of teleworking while, at the same time, providing employers access to a larger pool of skilled workers in a tight labor market:

- Continue and expand upon public and private sector initiatives that provide under served populations access to computers and technology through grant programs or other incentives.
- Offer the private sector with incentives to provide satellite technology for hard to access rural areas and Indian reservations.
- Create incentives and provide training for employers so they can and will hire people where unemployment rates are significantly above the national average (inner cities, rural areas, Indian reservations) rather than increasing reliance on offshore labor through HB-1 visas.
- Fund and conduct pilot programs to demonstrate how teleworking can be used to provide new employment opportunities for under served populations. For example, ITAC is collaborating with the Northern Arapaho Business Development Corporation in Wyoming to establish the Wind River Indian Reservation Technology Portal. This facility will provide Indians from the Reservation with training and access to employment with organizations in the Washington metropolitan region through the use of information technology and telecommunications.
- Continue to share information and findings on efforts to bridge the telework divide through organizations like ITAC.

End Notes

¹ Based on Telework America 2000 research results issued by the International Telework Association and Council on October 24, 2000.

² Senator Wellstone's bill was originally introduced as S. 2447, Rural Telework Act of 2000.